

Town of Arlington, MA Redevelopment Board

Agenda & Meeting Notice September 23, 2024

Per Board Rules and Regulations, public comments will be accepted during the public comment periods designated on the agenda. Written comments may be provided by email to cricker@town.arlington.ma.us by Monday, September 23, 2024, at 3:00 pm. The Board requests that correspondence that includes visual information should be provided by Friday, September 20, 2024, at 12:00 pm.

The Arlington Redevelopment Board will meet Monday, September 23, 2024 at 7:00 PM in the Arlington Community Center, Main Hall, 27 Maple Street, Arlington, MA 02476

1. Review Meeting Minutes

7:00 pm The Board will review and vote on meeting minutes from September 9, 2024.

2. Public Hearing: Docket #3798, 821 Massachusetts Ave (continued from July 1, 2024)

7:05 pm

Notice is herewith given that an application has been filed on April 22, 2024, by Noyes Realty LLLP, PO Box 40, Marblehead, MA 01945, to open Special Permit Docket #3798 in accordance with the provisions of MGL Chapter 40A § 11, and the Town of Arlington Zoning Bylaw Sections 3.3, Special Permits, and 3.4, Environmental Design Review. The applicant proposes to demolish the existing building and construct a mixed-use building located at 821 Massachusetts Avenue, Arlington, MA, in the B4 Vehicular Oriented Business District. The opening of the Docket is to allow the Board to review and approve the changes to the exterior under Section 3.4, Environmental Design Review.

- Applicant will be provided 10 minutes for an introductory presentation.
- DPCD staff will be provided 5 minutes for an overview of their Public Hearing Memorandum.
- Members of the public will be provided time to comment.
- · Board members will discuss Docket and may vote.

In addition to the attached documents, a SketchUp Model Video is available here.

3. Debrief of Joint Meeting with Select Board

8:05 pm

The Board will discuss remaining items and outcomes from their joint meeting with the Select Board on September 16, 2024.

4. Open Forum

8:15 pm

Except in unusual circumstances, any matter presented for consideration of the Board shall neither be acted upon, nor a decision made, the night of the presentation. There is a three-minute time limit to present a concern or request.

5. New Business

8:30 pm

6. Adjourn

8:45 pm (Estimated)



Town of Arlington, Massachusetts

Review Meeting Minutes

Summary:

7:00 pm The Board will review and vote on meeting minutes from September 9, 2024.

ATTACHMENTS:

Type File Name Description

Reference Material 09092024_DRAFT_AMENDED_Minutes_Redevelopment_Board.pdf AMENDED Minutes Redevelopment Board

Arlington Redevelopment Board Monday, September 9, 2024, at 7:30 PM Community Center, Main Hall 27 Maple Street, Arlington, MA 02476 Meeting Minutes

This meeting was recorded by ACMi.

PRESENT: Rachel Zsembery (Chair), Eugene Benson, Shaina Korman-Houston, Kin Lau, Stephen Revilak

STAFF: Claire Ricker, Director of Planning and Community Development; Sarah Suarez, Assistant Director of Planning and Community Development

The Chair called the meeting of the Board to order.

The Chair opened with Agenda Item 1 - Review Meeting Minutes.

August 5, 2024, minutes – The Board members had no changes to the minutes. The Chair requested a motion to approve the minutes as submitted. Mr. Lau so moved, Mr. Benson seconded, and the Board voted unanimously in favor.

The Chair moved to Agenda Item 2 – Public Hearing: Docket #3816, 5-7 Belknap Street.

Ms. Ricker explained that the application is for Site Plan Review for a property at 5-7 Belknap Street, in the Neighborhood Multi-Family Overlay District. This is the Board's first hearing for Site Plan Review. The proposal is to demolish an existing two-family house and garage and construct a four-unit multi-family development comprised of two front-to-back buildings connected by a courtyard, each containing two townhouse-style units. The proposal also includes a driveway with four parking spaces, each with its own EV charger, and a shed for bicycle storage.

The applicant was represented by Brian McGrail, attorney representing 5-7 Belknap Street LLC, Michael Collins, 5-7 Belknap Street LLC manager, Brigitte Steines, architect, and Paul Pinocchio, site engineer. Mr. McGrail noted that the Multi-Family Housing Overlay Districts were recently enacted by the Town of Arlington. The property is located within one of those districts, the Neighborhood Multi-Family Housing Overlay District, so the project is allowed as of right, with no requirement for a Special Permit, requiring only Site Plan Review.

Ms. Steines presented the details of the project. She noted that the footprint of the proposed buildings was not significantly larger than the footprint of the existing house and garage. The proposed four units are in two separate buildings, with one behind the other, so the massing on Belknap Street is not overly large, and there is space and light between the buildings. The driveway is set up so that each unit has a parking space with an EV charger. The required setback on the left side of the property is 5 feet, but their plans include a 7-foot setback. After outreach and multiple meetings with neighbors, the original plans were changed to protect the privacy of the immediate neighbors by moving the rear building forward somewhat. Bicycle parking and storage for trash and recycling are provided. The color palette is prevalent in the neighborhood. The neighborhood includes a variety of building styles, including both flat and gabled fronts. The proposed building is not a monolithic flat surface, but includes balconies and a wide porch enabling connection to passersby on the street. The front setback is smaller than the brick building to the right but comparable with the building to the left. The building includes roof decks, which are oriented toward Belknap Street, to provide additional privacy for the rear neighbors. The roofs include a significant amount of empty space, which will be solar ready and include space heat pump inverters, since the buildings are entirely electric. The footprint and height are below what is allowable. They are not asking for any relief from the zoning bylaws. External lights are all soft lights pointing downward. They are including as much sustainable material as they can, and they are matching the clapboard look of the rest of the neighborhood.

Mr. Revilak asked about bicycle parking. He asked if the bikes can be wheeled into place in the bike shed, or if the storage is upright. Ms. Steines said that it is upright to be maximize the use of the space, but the details are not finalized.

The space will be tall enough to stand up in, and it will include lighting. Mr. Revilak asked if bicycle charging will be available. Ms. Steines responded that they have not yet considered it, but it can be included.

Mr. Benson asked about plans for snow removal. Ms. Steines responded that snow would have to be moved to the side strip or the back. Mr. Benson expressed concern that snow would be pushed onto a walkway or the street, and he asked how it would be clarified where snow can safely be put. Ms. Steines replied that it would have to be worked out in regulations about where snow can be moved, as in any dense area. Mr. McGrail said that he was worked on projects in which snow must be entirely removed from the site when it reaches a certain depth.

Mr. Benson also asked what type of plantings would be placed along the right side edge of the property. Ms. Steines replied that they would be low, easy to maintain plantings, probably no taller than 18 inches. Mr. Benson replied that he thought that the vegetated buffer should be higher. Ms. Steines replied that they could consider something higher, but that might be less sustainable in close proximity to parking. The proposed driveway will be in the same place as the current driveway, which has no buffer between it and the neighboring building. Higher plants are proposed for the buffer on the side without the driveway.

Mr. Benson also asked for clarification about whether there would be railings on the side of the roof as there are on the front. Ms. Steines replied that the mechanical areas do not have railings, but the roof decks do, and they will be 42 inches high.

Ms. Korman-Houston noted that the application states that the impervious square footage will be reduced from the current site, but she doesn't understand how that is possible based on the drawings and maps. Ms. Steines replied that the current driveway covers a large area and is entirely asphalt, but the proposed driveway will be partially pervious, made out of a rubber material with pea gravel.

Ms. Korman-Houston asked if the rear patios were shared or for private use by individual units. Ms. Steines said that the back yard is for the use of the two units in the rear building, the front yard is for the use of the two units in the front building, and the connecting porch is for common use. The four roof decks are private, for each individual unit.

Ms. Korman-Houston asked about solar. Ms. Steines said that they did a full study, which they submitted, to look at how much power would be needed to power the units, and the units are fully solar ready, should the future owners wish to install it.

Mr. Lau asked if any lighting is provided along the driveway. Ms. Steines said that they have not considered that, but they could add small lights along the lower level of the exterior of the building which would shine down on the walkway along the building, next to the driveway.

Mr. Lau asked about the porch and patio. Ms. Steines said that the center patio is solid and filled in, and the front and back porches are traditional wood construction on a foundation. Mr. Lau noted that if the front and back porches will not have roofs over them, they can be counted as pervious.

Mr. Lau asked if the units would be condominiums or rentals. Mr. McGrail replied that they will be condos. Mr. Lau noted that there will need to be a condo agreement that would cover snow removal, trash removal, etc.

The Chair said that she was disappointed not to see trim around the windows and at the corners, to make it fit in better with the more traditional houses on the street. She noted that Mr. Collins' portfolio included an example of similarly modern architecture that she thinks would fit in better with the architecture on the street because it includes trim around the larger openings and at the corners.

The Chair opened the floor for public comment:

- Wynelle Evans, Orchard Place She thinks that Mr. Collins has done some of the better-looking recent developments in Arlington, but she is disappointed in this design, because she does not think that it respects its surroundings. She would like to see a design that fits into the street a little more thoughtfully.
- Jenny Toole, 9 Belknap Street She lives in the house at the rear of the driveway of the property immediately abutting 5-7 Belknap Street, along with her husband and two young children. She appreciates the fact that Mr. Collins and Ms. Steines have worked with her and other neighbors and have altered the design based on their

feedback. This is the first development in Arlington under the MBTA Communities Act. The MBTA Communities Act website says that its intention is to help resolve the housing crisis in Massachusetts. Over the course of the past four years, three of the fourteen properties on Belknap Street have been purchased by developers, which has been disruptive to the neighborhood. The new houses were sold for between \$1 and \$1.7 million, so they have contributed to rising housing costs and have not helped with the affordability crisis for families and children. The MBTA Communities Act requires that the housing created is suitable for families with children. The mortgage for a \$1.7 million house would be about \$10,000 per month, which is not feasible for most families with children. The proposed development of multi-million-dollar condos at 5-7 Belknap doesn't align with the spirit of the MBTA Communities Act, especially considering the extremely small yards, roof decks, and balconies. She would like the Board to carefully consider the impact of this development on this very small street and neighborhood.

- Carl Wagner, 30 Edgehill Road, Precinct 15 Town Meeting Member This meeting should have proper microphones and speaker systems. The Town of Arlington should have hybrid meetings. The look of the building is terrible, and he would not want to live near it. The proposed building will cast a lot of shadow and is getting rid of open space and permeable land. It is taking advantage of Arlington. If residents go to Town Meeting Members, they can change the law to make development not so aggressive. This project should be held to the letter of the law as much as possible. The MBTA Communities Act took away a lot of the Board's power to restrict this type of development. It is also anti-affordability; these units will cost more than what was there before. If the Board doesn't want to see Town Meeting go backwards, he asks that they use the power they have to restrict this project from things like putting a balcony 10 feet away from a child's bedroom.
- Peter Bermudas, 19 Belknap Road He appreciates the fact that Mr. Collins engaged the neighbors and made an effort to address their concerns. It looks to him like the building height is 33.5 feet, but that does not include the four stairway bump-outs, and he would like to know if those should be included in the building height as well. He is also concerned about the fact that the building's shadows might impact solar projects on nearby houses, even as Arlington is committed to increasing the use of renewable energy. 13-15 Belknap Street is a two-year-old development with three of four units vacant because of serious structural problems in the building. He asked if Arlington's Inspectional Services has more capacity than it did at the time and will be able to provide the oversight necessary for this project and others in the coming years in order to prevent more of the type of problems facing 13-15 Belknap. The development team suggests that the development will increase the value of neighboring homes, but 9 Belknap Street will now be dwarfed and often in the shadow of the new building.
- Ratnakar Vellanki, 21 Adams Street He thinks that the fact that a property that currently has two units will soon have four units is great news. The Federal Reserve Bank, in its most recent white paper, clearly said that increasing the supply of housing creates mobility and reduces prices. He noted that for as of right uses, Site Plan Review is limited to imposing certain narrow terms and conditions and cannot result in denial. That narrow scope was clearly laid out in Article 12, which was passed by Special Town Meeting in October 2023, and it is limited to Section 3.4.4 of the zoning bylaw. He would urge that the Board limit their questions to that narrow scope. Section 3.4.4 clearly states Environmental Design Review (EDR) is only applicable in two cases: situations requiring both a Special Permit AND a Building Permit, which is not the case here as no Special Permit is required, or proposals that alter the façade in a manner that affects the architectural integrity of the structure AND are for one of the uses listed in subparagraphs a through i, none of which apply in this case. Therefore EDR does not apply in this case.
- Daniel Green, 40 Irving Street He would like to understand the Board's interpretation of the bylaw in terms of the framework for handling Site Plan Review applications, given that this is the first.
- Susan Stamps, 39 Grafton Street It is exciting that Arlington has its first MBTA Communities project, but she is surprised at the design of the building. She is disappointed that it is a super-modern, square design, amid more traditional buildings on that street. The Site Plan Review application says, "Proposed development shall be related harmoniously to the terrain and to the use, scale, and architecture of existing buildings in the vicinity that have functional or visual relationship to the proposed buildings." The proposed building looks completely different from all the neighboring buildings, and she would like to see a visual design that makes it look more traditional, like the rest of the buildings on the street, as developers have done elsewhere in Town.

• Peter Bloom, Jason Terrace – He likes the architecture on Belknap Street, and he has always been disturbed by the design of the brick building plopped into the middle of that neighborhood with more traditional architecture. If that building's design has been used as a justification for the type of design this application includes, that will make it more likely that future such buildings will follow. For the sake of the neighborhood's architectural heritage, he hopes that does not happen.

Seeing no one else who wished to speak, the Chair closed public comment.

Mr. Revilak said that he understands that the applicants are trying to maximize space, but it would be preferable to have bicycle parking that would allow bicycles to be wheeled in, and not then have to be lifted up.

Mr. Benson noted that under Site Plan Review, the Board cannot deny the application, as long as the project meets the zoning bylaw requirements. This is different from a Special Permit, in which the Board has more authority. This development is as of right, which was required by the MBTA Communities Law. The zoning bylaw gives the Board the authority to do Site Plan Review, which allows them to place reasonable conditions on the application, but not to say no entirely. He thinks that there is one area in which this proposal does not meet the zoning bylaw requirements: side yards used for parking are required to have a visual buffer, and low plantings are not sufficient. His other concern is the lack of privacy of the roof decks, both for residents and for neighbors. He wondered if it would make sense to require some sort of screening as part of the roof deck railings. He also noted that adherence to the Town's Residential Design Guidelines is a requirement that the Board is allowed to impose, which is relevant to the Chair's earlier comment about wanting to see trim around the windows.

Ms. Korman-Houston noted that roof bump-outs are not generally included in calculations about the overall height of the building. She also responded to Mr. Benson's comment about screening the roof decks; it would increase privacy, but it would also increase the appearance of the building's height, making it appear that the height difference with neighboring houses is even larger. She also expressed concerns about the driveway, which seems very narrow. They are trying to fit a lot of cars into a small space.

Mr. Lau agreed with Mr. Benson that the plans should include some sort of screening between the driveway and the neighbors to the right, possibly a fence. He does not think that screening is necessary for the roof deck. Snow removal plans should be part of the condo agreement. He agreed with the Chair about adding trim around the windows.

The Chair noted that the Board has three options: to vote to approve the project as is, to vote to approve the project with conditions, or to vote not to approve the project on the basis that it does not meet the zoning bylaw requirements. They cannot vote to continue the hearing and ask that the applicant return.

Mr. Benson noted that the zoning bylaw requires a vegetated buffer next to parking, not a fence.

Mr. Revilak agreed with the Chair about including trim around the windows, as shown in other examples in Mr. Collins' portfolio.

Mr. Revilak noted that the Zoning Board of Appeal's interpretation of the requirement for a vegetated buffer next to parking is that it must be at least a foot wide, preferably 18 inches. Mr. Benson noted that the purpose of that requirement (in Section 6.1.10.A) is to "minimize visual impacts"; no specific height is listed, but it must be tall enough to provide a visual barrier. The Chair's concern is that because the height is not specified in the zoning bylaw, placing a specific condition on the height would likely be inconsistent with how it is interpreted by other boards and departments, particularly because the Redevelopment Board does not usually review residential projects. Mr. Benson said that requiring a specific height would set a precedent for future projects subject to Site Plan Review.

The Chair note that the Board has suggested several possible conditions, including bicycle parking that does not require the bicycles to be lifted, adequate snow removal measures for the property, and architectural trim around the windows and on the corners of the buildings. She asked if the applicants would be willing to meet those conditions, and Mr. Collins replied that they would be.

The Chair said that the Board needs to decide if it also wants to include a condition requiring a taller vegetated buffer next to the parking. She said that she is fine with the lower vegetation as proposed, especially because a taller buffer, whether a fence or vegetation, will make it difficult to get in and out of cars parked along it, and because the zero

bylaw does specify height. Mr. Collins asked if a vegetated buffer would have to be continuous, or if they could plant multiple four- or five-foot tall plants with gaps between them, enabling people to get in and out of cars in the gaps, while also providing something of a visual buffer. Mr. Benson said that the zoning bylaw does not specifically answer that question. Ms. Steines said that she initially wanted the buffer beside the parking to be a continuous four-foot-high hedge, but their landscape architect said that when such a hedge is built next to parking, car doors end up damaging the plants. She does not want to include plants that are likely to be damaged and end up looking terrible. Their plan is to plant taller plants in the sections of the buffer where there is no parking and lower plants next to the designated parking spaces. Mr. Benson suggested including taller plants at the points between each of the parking spaces. Mr. Lau said that the Board can't require that because the zoning bylaw doesn't require it. He doesn't want to set a precedent that something is going to be required that's not in the zoning bylaw. The Chair said that the Board can work with an applicant to come up with a solution to particular issues even if that solution is not required by the zoning bylaw. Mr. Revilak noted that this is a vague section of the bylaw, and ideally it will be clarified at some future point.

The Chair asked for a motion to approve the Docket 3816 Site Plan Review application with the following conditions:

- That the applicant create a snow removal plan as part of the condo documents.
- That the applicant review the Residential Design Guidelines and add trim around window openings and on the corners of the building.
- That the applicant create bicycle parking that does not require that bicycles be lifted for storage.
- That the applicant raise the height of the vegetated buffer in the twelve-inch-wide planting strip to the right of the parking spaces, to the extent possible.
- That the project comply with site lighting requirements for the Town of Arlington.

Mr. Benson suggested that the Board ask the applicant to return to a future meeting and present revised plans. The Chair said that the Board can ask the applicant to update DPCD with their revised plans, but that asking them to return to a future Board meeting defeats the purpose of having an as of right development under Site Plan Review. Ms. Korman-Houston, Mr. Revilak, and Mr. Lau agreed that administrative approval for changes would be appropriate.

Mr. Lau moved to approve the Docket with the above conditions, and Mr. Revilak seconded. The Board voted unanimously in favor.

The Chair moved to Agenda Item 3 – Public Hearing: Docket #3633, 1500 Massachusetts Avenue.

Ms. Ricker stated that the developer requested that Docket #3633 be reopened in order to discuss converting part of the approved first floor commercial space to an accessible residential unit. The applicant has gone to the Massachusetts Architectural Access Board (AAB), which approved the accessible unit. The applicant submitted revised architectural plans, communication with the former Director of DPCD relating to the parking area, site photos, and elevator study diagrams.

Owner Darren DiNucci and architect Monte French were present. Mr. DiNucci said that a lot of inaccurate information has been circulating about this project, and he hopes that anyone with comments or questions about the project bring it to the Board rather than speculate about it on social media. Mr. DiNucci said that he was contacted by Mike Ciampa, Director of Inspectional Services, last April, letting him know that the building permit was issued in error and recommending that he go to the AAB, which he did. He is a member of the community, and he is committed to working with the Board. Since first going before the Board, he has complied with and communicated with the Board at every step.

Mr. French presented the updated plans. As requested by the Board, they removed the left-hand bicycle corridor which took up some of the first-floor space; access to bicycle storage is now through the side yard. Removing the corridor enabled them to increase the area of the office to 600 square feet and of the accessible unit to 550 square feet. They also removed the stairs connecting the side yard to the rear yard and made the side yard open space for the accessible unit, which the AAB accepted. The side yard also provides access to the long-term bicycle storage and the trash toward the rear of the building. The Director of the AAB approved every aspect of their plans. The commercial space has a dedicated bathroom and a small storage closet. The accessible first-floor unit includes a galley-style kitchen and accessible bathroom. There is short-term bicycle parking in front of the building, with more spots than the minimum required.

Mr. French also shared a series of emails with Jennifer Raitt, former Director of DPCD, in which they requested changes to parking based on the discovery of extensive ledge, which made their original plans impossible. He said that Ms. Raitt approved all the parking changes.

Mr. French noted that the construction had proceeded quite far by the time Mr. Ciampa contacted them about needing an accessible unit. He shared photos of the site as it currently exists, showing the front and side yards (before landscaping), the driveway, and the partially finished interiors.

Mr. French shared an elevator study, as requested by the Board. If an elevator is installed, it must serve all units. All potential options for placement of the elevator are disruptive and would take space away from the commercial and residential units and would require redoing bathrooms and kitchens that have already been built.

Mr. French also shared two parking studies, each of which included two full-size spaces and three compact spaces, rather than the five compact spaces they previously planned.

Mr. Revilak said that long-term bicycle parking must be protected from the weather and be secure, so outdoor long-term spaces would need to be in a locked enclosure. It would be preferable to increase the number of indoor spaces from six to eight. One option would to have the spaces at 45-degree angles with 4-foot on-center spacing.

Mr. Revilak asked if the discovery of ledge and the issues with the shoring of the retaining wall to the rear of the property played a role in the request to change the dimensions of the parking spaces. Mr. French said that was the case, and referred to a series of emails between architect Emily Driscoll and Jennifer Raitt about those changes. Mr. DiNucci explained that the site engineer discovered that the footing of the retaining wall at the rear of the parking would need to be much larger than expected, which significantly reduced the space available for parking.

Mr. Benson asked for the square footage of the accessible studio apartment. Mr. French said that the gross square footage is 549, and the net square footage is 485. Mr. Benson also asked about windows in the accessible unit and about adding a window on the side exterior wall. Mr. French replied that the only window is the large window in the front. Two sides of the unit are interior walls, and it is not possible to add a window on the other exterior wall. The AAB approved the unit with only one window because it is a very tall window covering most of the front wall, and it allows plenty of light. Mr. Benson asked if the occupant of the accessible unit would have access to the trash storage in the rear room, and Mr. French replied that they would. Mr. Benson asked if any of the parking spaces are accessible. Mr. French said that they are not, which was specifically reviewed with the AAB. Mr. Benson asked how many full-size and how many compact parking spaces they were proposing. Mr. French said that they have proposed two options, both of which include two full-size and three compact parking spaces.

Ms. Korman-Houston noted that the large front window is appropriate for a commercial space but not a residential space. She asked if there was a way to create a slightly smaller window appropriate for a residential space without significant changing the look from the street. The Chair asked if they could put two double-hung windows in each of the bay windows, so that it doesn't look like a large storefront window looking into a residential space. Mr. French said that there are ways to remove the glazing and put in different artificial grills or other dividers. Mr. DiNucci said that changing those windows would make the building look terrible. His plan was to install a high-quality blind system that would allow the resident privacy while still getting all the light of the window. He never considered changing the window style because he thought the Board wanted it to look like a commercial space. The Chair replied that they did want that when it actually was a commercial space. Mr. DiNucci said that completely changing the windows would cost a significant amount of money, but they can change the aesthetics more simply. He also noted that the exterior will be landscaped, which will be a buffer that will block the bottom of the window. Ms. Korman-Houston said that none of that would address the look from the interior; it would look strange from inside a residential unit to have floor to ceiling windows across the entire front of the unit, particularly on the ground floor. Mr. DiNucci said that his hope is to find blinds that will mitigate that effect, but it would also be simple to build a wall on the inside that would cover the lower portion of the window. Ms. Korman-Houston noted that a wall on the inside would look strange from the outside if the window still goes to the ground. Mr. French said that there are applique grills and other treatments that can alter the look of the window from the outside.

Mr. Lau agreed that it is important to soften the look of the windows of the residential unit. He also asked if they intend to include any EV charging units in the parking lot. Mr. DiNucci said that they do. Mr. Lau said that if they only intend to

have one EV charging unit, he would recommend using the parking plan that places all the parking spaces in a row, so they can put it between a compact space and a full-size space, enabling cars of different sizes to use it. If they intend to have two EV charging units, they can use the other parking plan and place one charging unit by each set of parking spaces. Mr. French noted that the first parking plan is better for snow removal.

Mr. Lau asked about the grading of the rear yard. Mr. French replied that they intend to do some regrading to meet the open space requirements. But the open space will not be as far above the parking as initially planned, because the level of the parking has been significantly raised, due to the issues with ledge. Mr. Lau also wanted to make sure that rainwater and melting snow from the open space will not wash into the parking area. Mr. DiNucci said that it would not because of the drainage systems installed.

The Chair expressed disappointment in the fact that the whole first floor will not be commercial, which is what the Board initially approved in 2020. If the Board approves this amendment, it will be because they are trying to work with the applicant in the current conditions; it is not a precedent for what they would generally approve for a mixed-use project.

The Chair noted that all the upper residential units have the ability to open their windows, but the accessible first-floor unit does not. She would prefer to replace the large commercial window with double-hung windows to enable the resident to naturally ventilate their space. Changing the look of the windows for the accessible unit would also help to differentiate the first-floor commercial space from the residential space. She thinks that the first-floor windows can be made to be visually continuous with the upper-floor windows, so it's not a problem if they're not continuous with the first-floor windows of the commercial unit. This is a different use from what was originally approved, and the windows should reflect that. Mr. DiNucci replied that it would be easier to cut another window in the side wall that could be a large double-hung window, enabling the resident to open it, than to change the front window. Mr. Benson said that his preference would be to add a side window. It would add more light, and it would allow the resident to open a window not immediately facing Mass Ave and the sidewalk. Mr. Lau agreed. The Chair said that she is still concerned about how the front window will look and how difficult it will be for the resident to control light and privacy with shades given that it is such a large window.

The Chair opened the floor for public comment:

• Carl Wagner, 30 Edgehill Road, Precinct 15 Town Meeting Member – He appreciates that the Board is standing up for the future occupants of the first-floor unit. Having only one window that doesn't open and faces north is unacceptable. He also appreciates that the plan is following accessibility laws. However, as public correspondence relating to this project has pointed out, the parking is still not legal. The Board has the ability to reduce the number of spaces, so they could reduce it to four spaces but make one accessible.

Seeing no one else who wished to speak, the Chair closed public comment.

Mr. DiNucci said that the front window will allow for privacy because it is heavily tinted. The Chair replied because of the size and style of the window, it doesn't feel like a residential unit, even if it allows for privacy. Spaces need to be designed with their particular use in mind, and trying to change a commercial space to a residential space after designing it with commercial windows doesn't provide for a good residential space, especially as compared to the other residential units in the building. She also noted that a side window would be looking at the side of the adjacent commercial building. She asked if they could work with the neighboring property owner about putting plantings there so that the view from the side window wasn't just of the wall. Mr. DiNucci replied that he knows and works well with that owner, and that the entire side yard is part of the 1500 Mass Ave property, so they can do whatever landscaping they want in that space. The Chair suggested some sort of trellised vegetation on the neighboring wall.

Mr. Revilak likes the idea of adding a window to the side. He thinks that the look of the floor to ceiling window in the front looks too commercial, and he would like the bottom portion of that to be covered, perhaps with a low wall, so that it's not visible from the exterior and does not look to the public like a commercial space.

Mr. Benson said that adding a large window on the side of the accessible unit makes it a much better project and a better place to live. He thinks that this is a difficult situation. In 2020, the Board and developer came up with something that they all thought would work, but it ended up not working, so now they have to figure out what to do. He is not as

concerned about the front window if a side window is added. Finding a way to soften it and make it look less commercial would be good. It's not ideal, but this is not an ideal situation.

Mr. Benson said that does not believe that the Board has the authority to allow more than one compact parking space. They could reduce the overall number of spaces to four with the submission of a Transportation Demand Management (TDM) plan. They could also approve the overall plan with the requirement that they go to the Zoning Board of Appeals (ZBA) to get a variance for the parking. He asked Mr. French if they could include four standard spaces. He replied that they could with the second parking option, but not the first. Mr. Benson noted that if they approved a reduction to four spaces, one of the tenants would not have a parking space. Mr. DiNucci replied that there is a bus stop directly in front, and he thinks they may well get one or more tenants without a car even if all the units offer parking spaces. He would be fine with marketing one of the spaces as having no parking. If the Board agrees with the four-space option, they could include administrative approval of a TDM plan by DPCD staff as a condition. The Chair said that she believes that the Board can provide relief on Section 6.1.11.C.(11), which deals with compact parking spaces. She would also be fine with the applicant going down to four spaces and providing a TDM plan to DPCD staff. Mr. French said that he thinks they already have most of the pieces required for a TDM plan. Mr. Revilak said that part of a TDM plan could be including outlets for charging electric bikes in the bike storage room. Mr. Benson said that another part could be charging tenants for parking spaces rather than automatically including a space with four of the units.

Ms. Korman-Houston agreed that an operable window is important. It would be nice to have more than one, but she can accept just one on the side. The front window also needs to have some treatment that makes it more appropriate for a residential unit. Mr. DiNucci noted that the first-floor residential unit already includes an opening for a door which they plan to close up; they could close the lower half and turn the upper half, which would be above a kitchen counter, into a window, as well as putting a second window in the bedroom area. Mr. French said that it would also be possible to put surface-applied artificial grills on the front windows. Ms. Korman-Houston likes the idea of two windows on the side. She would like to see an image of what the grills on the front windows would look like. The Chair said that the applicants could provide that to DPCD.

Mr. Lau said that he would like the applicant to remove the two bicycle parking spaces in front of the ground-floor residential unit, so that they can have a front porch area, rather than public bicycle parking. He noted that the plans already provide more bicycle parking than required. Mr. French and Mr. DiNucci agreed.

The Chair asked the applicant to provide to DPCD a front elevation showing options for simulated dividers for the windows of the first-floor residential unit that will differentiate it from the commercial space next door. She also noted that blinds that go across the entire width of the windows would be very unwieldy, especially given that this is an accessible unit that may be occupied by someone with a disability of some sort. Dividers will enable the installation of multiple sets of blinds that are not as wide. She would be fine with administrative approval of those plans; other Board members agreed. Mr. French said that they would submit revised drawings as well as images of materials.

The Chair summarized conditions for approval:

- reduce parking to four full-size spaces, with a Transportation Demand Management plan submitted to DPCD for administrative approval;
- remove bicycle parking in front of first-floor residential unit;
- add two punch openings to masonry wall into accessible unit for operable windows;
- add vertical vegetation along the wall of the adjacent property, directly across from those windows;
- submit elevation detailing simulated divider lights to be added to the two front windows of the accessible unit to DPCD for administrative approval; and
- ensure that all eight long-term bicycle spaces are in the bicycle room, including charging stations for e-bikes.

The Chair noted that these would be new conditions, in addition to the conditions of the original Special Permit. In the case of a conflict between these conditions and the original conditions, these new conditions would supersede the prior conditions.

The Chair asked for a motion to approve Docket #3633, the reopened Special Permit for 1500 Massachusetts Avenue, with the conditions as stated. Mr. Lau so moved, Mr. Benson seconded, and the Board voted unanimously in favor.

The Chair moved to Agenda Item 4 – Representative to Community Preservation Act (CPA) Committee.

Ms. Ricker explained that the Board has a designated seat on the CPA Committee, which decides how to distribute CPA funds.

Mr. Lau moved to nominate Ms. Korman-Houston as the Board's representative to the CPA Committee, and she accepted the nomination. Mr. Benson seconded the motion. The Board voted unanimously in favor.

The Chair moved to **Agenda Item 5 – Open Forum.**

The Chair opened the floor to public comment:

• Ms. Wynelle Evans, Orchard Place – She brought a concern to the Board several months ago regarding the development at 882 Mass Ave. It appears that the entire portion of the ground floor that faces Mass Ave is a gym for the use of residents. The back of the building has drawn shades and no signage indicating commercial use, so it appears that this is no longer a mixed-use building. In addition, the frosted glass on the Mass Ave side does not meet the transparency requirements, which is 60% of the glass between 2 and 8 feet from ground level. The affordable units in that building were undersized, overpriced, and not properly dispersed throughout the building. The same property owners also have a project at 455 Mass Ave, which originally had a one-bedroom affordable unit of 687 square feet, which does not meet the minimum of 700 square feet required by state law. She would like to know if that issue has been resolved.

Ms. Ricker replied that they are working closely with the developer, especially concerning unit size.

Mr. Lau replied that 882 Mass is still a mixed-use building. The first-floor tenant is a therapist of some sort, but they do not want signage.

Seeing no one else who wished to speak, the Chair closed public comment.

The Chair moved to **Agenda Item 6 – New Business.**

Ms. Ricker reminded the Board that they will be having a joint meeting with the Select Board on Monday, September 16, 2024. She is working with the Select Board Administrator to make sure that they are in an appropriate space, with adequate seating for the two Boards. The Chair said that she is working with the Select Board Chair on an agenda.

Mr. Revilak asked if DPCD has gotten any responses to the Arlington Master Plan Update (AMPUp) RFP. She replied that they have received quite a few questions, which hopefully indicates an interest in submitting a proposal. She held a briefing on August 23, 2024, attended by two firms.

Mr. Revilak asked if DPCD will have a booth at Town Day, and if they have any staffing needs. Ms. Ricker replied that DPCD does have a booth. DPCD staff will be working that table, but additional volunteers would be welcome. The table will be highlighting AMPUp, the Arlington Heights Business District, and the Fox Library Feasibility Study. Other projects of DPCD have separate tables.

The Chair asked for a motion to adjourn. Mr. Lau so moved, and Mr. Benson seconded. The Board voted and approved unanimously.

Meeting Adjourned at 10:10 pm.



Town of Arlington, Massachusetts

Public Hearing: Docket #3798, 821 Massachusetts Ave (continued from July 1, 2024)

Summary:

7:05 pm

Notice is herewith given that an application has been filed on April 22, 2024, by Noyes Realty LLLP, PO Box 40, Marblehead, MA 01945, to open Special Permit Docket #3798 in accordance with the provisions of MGL Chapter 40A § 11, and the Town of Arlington Zoning Bylaw Sections 3.3, Special Permits, and 3.4, Environmental Design Review. The applicant proposes to demolish the existing building and construct a mixed-use building located at 821 Massachusetts Avenue, Arlington, MA, in the B4 Vehicular Oriented Business District. The opening of the Docket is to allow the Board to review and approve the changes to the exterior under Section 3.4, Environmental Design Review.

- Applicant will be provided 10 minutes for an introductory presentation.
- DPCD staff will be provided 5 minutes for an overview of their Public Hearing Memorandum.
- Members of the public will be provided time to comment.
- Board members will discuss Docket and may vote.

In addition to the attached documents, a SketchUp Model Video is available here.

ATTACHMENTS:

	Туре	File Name	Description
ם	Reference Material	821_Mass_Ave _EDR_Special_Permit_ApplicationFinal _09052024.pdf	821 Mass Ave - EDR Special Permit Application - Final - 09052024
D	Reference Material	821_Mass_AveDrawing_Set _09052024REDUCED_SIZE.pdf	821 Mass Ave - Drawing Set - 09052024
D	Reference Material	821_Mass_AveTree_Evaluation_Letter _07312024.pdf	821 Mass Ave - Tree Evaluation Letter - 07312024
D	Reference Material	Tree_Warden_email_07-12-2024.pdf	Tree Warden email 07-12-2024
D	Reference Material	821_Mass_AveShade_Report _09042024.pdf	821 Mass Ave - Shade Report - 09042024
D	Reference Material	821_Mass_AveLEED_NC_Checklist _09052024.pdf	821 Mass Ave - LEED NC Checklist - 09052024
ם	Reference Material	821_Mass_Ave _Drainage_Calculations_Report _09062024.pdf	821 Mass Ave - Drainage Calculations Report - 09062024
D	Reference Material	821_Mass_Ave37kW_Solar_Array _09042024.pdf	821 Mass Ave - 37kW Solar Array - 09042024
D	Reference Material	821_Mass_AveFire_Dept_Memo _09052024.pdf	821 Mass Ave - Fire Dept Memo - 09052024
D	Reference Material	821_Mass_Avelegal_memo.pdf	821 Mass Ave - legal memo
D	Reference Material	CVS_Memorandum_of_Lease_01262010.pdf	CVS Memorandum of Lease 01262010

Reference EDR_memo_Docket_3798_821_Mass_Ave_- EDR memo Docket 3798 821 Mass Ave - UPDATED_09192024.pdf UPDATED_09192024

2024 SEP 10 P 3: 05

Impact statement

TOWN CLERK'S OFFICE ARLINGTON, MA 02 ARLINGTON, MA 02 ARLINGTON REDEVELOPMENT BOARD

2024 SEP | Application for Special Permit Under Environmental Design Review

REQUIRED SUBMITTALS CHECKLIST

Docket 3798

One electronic copy of your application is required; print materials may be requested, Review the ARB's Rules and Regulations, which can be found at www.arlingtonma.gov/arb, for the full list of required submittals.

V	Application Cover Sheet (project and property information, applicant information
V	Dimensional and Parking Information Form (see attached)

Statement should respond to Environmental Design Review (Section 3.4) and Special Permit (Section 3.3) criteria on pages 6-8 of this packet); include:

- LEED checklist and sustainable building narrative as described in criteria 12.
- Summary of neighborhood outreach, if held or planned.

✓ Drawing and photographs of existing conditions

- Identify boundaries of the development parcel and illustrate the existing conditions on that parcel, adjacent streets, and lots abutting or directly facing the development parcel across streets.
- Photographs showing conditions on the development parcel at the time of application and showing structures on abutting lots.

Site plan of proposal. Must include:

- Zoning boundaries, if any, and parcel boundaries;
- · Setbacks from property lines;
- Site access/egress points;
- Circulation routes for pedestrians, bicyclists, passenger vehicles, and service/delivery vehicles;
- New buildings and existing buildings to remain on the development parcel, clearly showing points of entry/exit;
- Other major site features within the parcel or along its perimeter, including but not limited to trees, fences, retaining walls, landscaped screens, utility boxes, and light fixtures;
- Spot grades or site topography and finish floor level;
- Open space provided on the site;
- Any existing or proposed easements or rights of way.

✓ Drawings of proposed structure

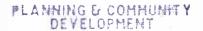
- Schematic drawings of each interior floor of each proposed building, including basements.
- Schematic drawings of the roof surface(s), identifying roof materials, mechanical equipment, screening devices, green roofs, solar arrays, usable outdoor terraces, and parapets.
- Elevations of each exterior façade of each building, identifying floor levels, materials, colors, and appurtenances such as mechanical vents and light fixtures.
- Drawings from one or more prominent public vantage point illustrating how the proposed project will appear within the context of its surroundings.
- Graphic information showing façade materials and color samples.
- Include lighting plan and fixtures if not provided on site or landscaping plan.

ARLINGTON REDEVELOPMENT BOARD

	Application	on to special Fermit Orider Environmental Design Review				
	Vehicle, Bicycle, and Service Vehicle Plans					
	 Parking and loading plans, including all vehicle and bid within a structure, showing dimensions of spaces, driv Include line-of-sight and turning radius along with lenger of the space of the section in the amount of requesting a reduction in the amount of requesting of all bicycle parking facilities located on the lot a of spaces and access routes and types of bicycle racks 	veways, access aisles, and access/egress points. gth and type of delivery truck. quired parking, include a Transportation and within any structure, including dimensions				
	Sustainable Building and Site Design Elements					
	 A solar energy systems assessment per Section 6.4, which must include: An analysis for solar energy system(s) for the site detailing layout and annual production; The maximum feasible solar zone area of all structures; and, Drawings showing the solar energy system you propose, with a narrative describ the system, the reasons the system was chosen, and how the system meets the requirements of Section 6.4; or A detailed explanation of why the project meets an exemption of Section 6.4.2. LEED checklist and narrative per EDR criterion 13. 					
	Proposed landscaping (may be incorporated into site plan) Schematic drawing(s) illustrating and clearly labels all landscape features, including hardscape materials, permeable areas, plant species, and light fixtures.					
	Plans for sign permits, if signage is an element of dev	elopment proposal				
\checkmark	Stormwater management plan (for stormwater management during construction for projects with new construction)					
\checkmark	SketchUp Compatible Model, if required					
\bigvee	Application fee (See <u>Rule 12 of the ARB Rules and Regulations</u> for how to calc	culate the fee)				
	FOR OFFICE USE ONLY	Docket #: <u>3798</u>				
	Special Permit Granted	Date:				
	Received evidence of filing with Registry of Deeds	Date:				

Date:

Notified Building Inspector of Special Permit filing



2024 SEP 10 P 3: 07

TOWN CLERK'S OFFICE ARLINGTON, MA 0217 ARLINGTON, MA 0217 ARLINGTON REDEVELOPMENT BOARD

Application for Special Permit Under Environmental Design Review PM 1: 34

Docket 3798

COVER SHEET

Application for Special Permit in Accordance with Environmental Design Review

PROP	ERTY AND PROJECT INFORMATION					
1.	Property Address 821 Massachusetts Avenue, Arlington MA					
	Assessors Block Plan, Block, Lot No. 052.0-0001-0001.10 Zoning District B4					
2.	Deed recorded in the Registry of deeds, Book 1350, Page 69					
	or- registered in Land Registration Office, Cert. No, in Book, Page					
3.	Present Use of Property (include # of dwelling units, if any) Vacant Building and CVS Store					
4.	Proposed Use of Property (include # of dwelling units, if any) First Floor Front - 2 Office Spaces; First Floor Rear, Second and Third Floors - 3 Residential Units					
APPLI	CANT INFORMATION					
1.	Applicant: Identify the person or organization requesting the Special Permit:					
	Name of Applicant(s) Geo ffey Noyes					
	Organization Noyes Realty, LLLP					
	Address P.O. Box 40 Marblehead MA 01945					
	Street City, State, Zip					
	Phone (781) 864-9686 Email gpnoyes@comcast.net					
2.	Applicant Interest: the applicant must have a legal interest in the subject property:					
	✓ Property owner □ Purchaser by land contract					
	Purchaser by option or purchase agreement Lessee/tenant					
3.	Property Owner					
	Identify the person or organization that owns the subject property:					
	Name Title					
	Organization Phone					
	Address Civi Civi Zin					
	Street City, State, Zip					

ARLINGTON REDEVELOPMENT BOARD

Application for Special Permit Under Environmental Design Review

4.	Manula	instansley-O'Connor	Title Attorney	r or applicant in this matter:			
	Krat	ttenmaker O'Connor & Ingher, P.C.	Phone (617) 52	23-1010			
		McKinley Sq., 5th	Floor B	oston MA 02109			
	Phone (617)	523-1009	_	y, State, Zip pr@koilaw.com			
5.	Permit applied for 3.3	r in accordance with the follo		ion(s)			
	3.4	Environmental Design Review					
	section(s)		title(s)				
6.		List any waivers being requested and the Zoning Bylaw section(s) which refer to the minimum or maximum requirements from which you are seeking relief.					
	section(s)		title(s)				
7.		ding the permits you reques		y additional information that may aid the hat you feel you should be granted the			
Thorag	pplicant states that		below, check the options tha	t apply) ccupant or purchaser under agreement			
•		on located at 821 Massachu					
which the Zo expres	is the subject of the ning Board of Appears Soly agrees to com	is application; and that unfo eals on a similar application	avorable action or r n regarding this prope ons and qualifications i	no unfavorable action has been taken b rty within the last two years. The applicar mposed upon this permission, either by th			
Signatu	re of Applicant(s):						
_	ho	Date					
P.0	. Box 40, Ma	arblehead, MA 01	945	(781) 864-9686			
Address				Phone			

DIMENSIONAL AND PARKING INFORMATION

Property Location: 821-833 Massachusetts Ave
Applicant: Noyes Realty, LLLp
Address: P.O. Box 40, Marblehead Ma 01945

Present Use/Occupancy: No. of Dwelling Units:
Vacant Building/Retail Space

Uses and their gross square feet:
40,449

Proposed Use/Occupancy: No. of Dwelling Units:

Uses and their gross square feet:

2 Ofice Spaces & 3 Residential Units/Ret

2 Offices (2,460 s.f.); 3 Units (2,383, 2383,

3,441 s.f.); Retail (36,945 s.f. - CVS)

		Conditions	Conditions		for Proposed Use
Lot Size		79,864	79,864	min.	20,000
Frontage		291.49	291.49	min.	50
Floor Area Ratio ¹		0.50	0.59	max.	1.0
Lot Coverage (%), where a	pplicable	17.9	21.8	max.	NA
Lot Area per Dwelling Unit	t (sf)	0	NA	min.	NA
Front Yard Depth (feet)		10.0	8.6	min.	0
Side Yard Width (feet)	right side	17.9	8.3	min.	0
4	left side	122.4	122.4	min.	0
Rear Yard Depth (feet)		91.9	91.9	min.	22.5
Height	stories	2.5	3	stories ²	4
	feet	26	36.33	Feet	50
Open Space (% of G.F.A.) ³				min.	
	Landscaped (sf)	5,607	5,607	(sf)	4,767
	Usable (sf)	0	1,695	(sf)	953
Parking Spaces (#) ⁴		73	73	min.	48
Parking Area Setbacks (fe	et) (where applicable)	NA	NA	min.	NA
Loading Spaces (#)	NA .	NA	min.	NA	
Bicycle Parking ⁵	short term	5	8	min.	8
	long term	5	11	min.	11

¹ FAR is based on Gross Floor Area. See Section 5.3.22 for how to calculate Gross Floor Area. On a separate page, provide the calculations you used to determine FAR, including the calculations for Gross Floor Area.

² Where two heights are noted in the dimensional tables, refer to Section 5.3.19, Reduced Height Buffer Area to determine the applicable height or the conditions under which the Board may provide relief.

³ Per Section 5.3.22(C), district dimensional requirements are calculated based on GFA. On a separate page, show how you determined the open space area amounts.

 $^{^{4}}$ See Section 6.1, Off-Street Parking. If requesting a parking reduction, refer to Section 6.1.5.

⁵ See Section 6.1.12, Bicycle Parking, or refer to the <u>Bicycle Parking Guidelines</u>.



821 MASSACHUSETTS AVENUE, ARLINGTON MA

RD 2958

Town of Arlington Redevelopment Board

ARB IMPACT STATEMENT

09/05/2024

Rojas Design, Inc.

Building Use and Size

This new mixed-use building will be three stories tall and have a total gross area of 16,792 GSF (including a 4,448 GSF Basement – storage & mechanical), or **12,344 GSF** without the Basement. The First Floor has a total gross area of 4,448 GSF, the Second Floor has a total gross area of 3,948 GSF, and the Third Floor has a total gross area of 3,948 GSF. The building would have a **total height of 36'-3" above average finished grade**. The new building is completely compliant with the Town of Arlington Zoning Bylaw's Dimensional Requirements for this district. The site will have **9 off-street parking spaces** (including one handicap space) dedicated to this building.

Two retail/office spaces and three residential units are included in the building. All retail/office spaces and residential units shall have 2 means of egress. The ground floor retail/office spaces shall be designed for code-compliant accessibility and will have direct on-grade entries. The common roof would include private, trellised roof decks for each residential unit, as well as the solar panels (50% of the roof area).

The proposed Uses and Sizes are as follows:

- Two (2) Retail/Office Spaces First Floor, on-grade (1,240 SF & 1,165 SF), or One (1) Retail/Office Space First Floor, on-grade fully accessible (2,405 SF);
- Unit 1 One (1) Second Floor Residential Unit (2,383 SF-TLA) 3 Bedrooms & 3 ½ Bathrooms. Unit 1 has Second Floor decks with a total of 198 SF, and an upper Roof Deck area of 1,142 SF. Unit 1, therefore, has a total exclusive use deck area of 1,340 SF;
- Unit 2 One (1) Third Floor Residential Unit (2,383 SF-TLA) 3 Bedrooms & 3 ½ Bathrooms. Unit 1 has Second Floor decks with a total of 198 SF, and an upper Roof Deck area of 1,142 SF. Unit 2, therefore, has a total exclusive use deck area of 1,340 SF; and,
- Unit 3 One (1) Three-story, Residential Unit (3,441 SF-TLA) 3 Bedrooms & 3 ½ Bathrooms. Unit 3 has Second & Third Floor decks with a total of 360 SF, and an upper Roof Deck area of 1,149 SF. Unit 3, therefore, has a total exclusive use deck area of 1,509 SF.

Special Permit Criteria

- 1. The uses requested (mixed-use) are listed as an allowable use in this zoning district.
- The requested uses (housing and office) are essential and desirable to the public convenience and welfare.



- **3.** The requested uses will not create any undue traffic congestion or in any way impair pedestrian safety. The uses and design will enhance pedestrian access and safety.
- 4. The requested uses will not overload any public water, drainage or sewer system or any other municipal system to such an extent that the requested uses or any developed use in the immediate area or in any other area of the Town will be unduly subjected to hazards affecting health, safety, or the general welfare.
- Any special regulations for the uses as may be provided in the Bylaw shall be fulfilled.
- **6.** The requested uses will not impair the integrity or character of the district or adjoining districts, nor be detrimental to the health, morals, or welfare. The uses and design will strengthen the civic street front and respectfully enhance the adjacent Church courtyard and landscape.
- 7. The requested uses will not, by its addition to a neighborhood, cause an excess of the particular uses that could be detrimental to the character of said neighborhood. The addition of new housing has a very favorable impact to the entire community. New office space will bring needed service providers to this neighborhood.

Environmental Review Criteria

1. Preservation of Landscape

The existing landscape shall be preserved, as far as practicable, and enhanced. This project minimizes tree and soil removal, and all grade adjustments are in keeping with the general appearance of neighboring developed areas. The existing 'side buffer' tree plantings shall remain and all landscape areas facing the abutters shall be enhanced and improved with new plantings.

2. Relation of Building to Environment

The proposed new building will relate harmoniously to the lot's terrain and to the use, scale, setbacks, and architecture of the existing buildings in the vicinity that have a functional or visual relationship to the building. The building respects and enhances its side-yard relationship to the abutting church. Additional plantings and landscape improvements will help define a more attractive and effective buffer. The new building's setbacks are consistent with the abutters' and meet the requirements of the Zoning By-Law.

3. Open Space

The project's open spaces are designed to add visual attractiveness and functionality for the residents, visitors, customers, and neighbors. The new entrance landscape and walkways from Massachusetts Avenue are designed to improve pedestrian safety, access, and identification. The new entry landscape plantings shall create a more attractive and pleasing streetside environment. The rear entrance landscape and walkways from the parking lot are similarly designed to enhance a safe pedestrian experience, provide additional plantings, lighting, bicycle parking, and clear access and egress. The upper



roof decks for the three residential units provide additional open space amenities and encourage social interaction.

4. Circulation

Special design attention has been given to the building's residential and office entrances, walkways, parking, and pedestrian areas regarding safe vehicular, pedestrian, and bicycle circulation. The building's ground floor is completely accessible and welcoming from both Massachusetts Avenue and the rear parking area. The existing associated rear parking for this building will be re-designed and improved for accessibility and functionality. Bicycle parking will be provided and will be accessible from the rear parking lot. The pedestrian, vehicular, and bicycle circulation improvements will improve safety, access, and attractiveness and will not detract from the use and enjoyment of the proposed building and the neighboring properties.

5. Surface Water Drainage

The site design for this parcel shall include proper site surface drainage so that removal of surface waters will not adversely affect neighboring properties or the public storm drainage system. Available Best Management Practices for the site shall be employed and include site planning to minimize impervious surface and reduce clearing and regrading. Best Management Practices may include erosion control and storm water treatment by means of swales, filters, plantings, roof gardens, native vegetation, and leaching catch basins. Storm water shall be treated on-site, as far as practicable. Storm water that cannot be managed on site shall be removed from all roofs, canopies, paved and pooling areas and carried away in an underground drainage system. Surface water in all paved areas shall be collected at intervals so that it will not obstruct the flow of vehicular or pedestrian traffic and will not create puddles in the paved areas. The current storm water drainage system in the existing parking lot is very functional and shall be kept in place. The applicant shall maintain all the existing and proposed storm water facilities such as catch basins, leaching catch basins, detention basins, swales, etc. within the site.

The areas that would be considered for stormwater infiltration are the existing parking areas on the northerly side of the project that are to remain. Deep hole soil testing would be performed to evaluate the potential for stormwater infiltration and to determine if groundwater or ledge are site issues.

A stormwater computer analysis would then be prepared to determine the amount of runoff to be infiltrated. The stormwater management design would propose using roof runoff only. Subsequently, stormwater structures would be designed to mitigate any increases in runoff volumes and flows.

In the end, the stormwater structures would most likely be installed under the existing parking spaces, then the parking spaces would be restored to their original condition and elevations. If necessary, the walkways would be designed with permeable pavers or paving.

6. Storm Water Facilities

The project will comply with the Department of Public Work's requirement for the maintenance of all storm water facilities.



7. Utility Service

All proposed electric, telephone, cable TV and other such lines and equipment shall be underground. The proposed method of sanitary sewage disposal and solid waste disposal from all buildings shall be in accordance with all codes and local requirements.

8. Advertising Features

The size, location, design, color, texture, lighting, and materials of all permanent signs (office and residential) and all other advertising structures or features shall be in conformance with the Town of Arlington's Signage Code and shall not detract from the use and enjoyment of proposed buildings and structures and the surrounding properties. All signage and advertising features will conform to the provisions of Section 6.2 of the Zoning Bylaw.

9. Special Features

Any exposed utility or service components (meters, transformers, etc.) shall be screened with appropriate plantings to minimize any visual impacts. Final plans shall include all exposed utility and mechanical features and their proposed landscape screening.

10. Safety

All the building's open and enclosed spaces shall be designed to facilitate building evacuation and maximize accessibility by fire, police, and other emergency personnel and equipment. As far as practicable, all exterior spaces and interior public and semi-public spaces shall be so designed as to minimize the fear and probability of personal harm or injury by increasing the potential surveillance by neighboring residents and passersby of any accident or attempted criminal act. Complete site and building security systems shall be incorporated into the proposed development. The safety and security of all residents, visitors, customers, and neighbors are important priorities of this project. The Arlington Fire Department has reviewed and approved the site plan for compliance with their vehicle access requirements.

11. Heritage

Arlington's heritage shall be respected. The removal, or disruption of historic, traditional, or significant uses, structures, or architectural elements shall be minimized, as far as practicable. The new building will provide a more consistent mixed-use presence on Massachusetts Avenue that relates to the Town's planning goals and priorities.

12. Microclimate

This development proposes a new structure and new hard-surface ground coverage and shall endeavor to minimize, as far as practicable, any adverse impact on light, air, and water resources, or on noise and temperature levels of the immediate environment. The building and site are designed with a focus on climate practicality, sustainability, and maintainability.

13. Sustainable Building and Site Design

This project shall incorporate best practices related to sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. The building and site are designed with a focus on climate awareness, sustainability, and maintainability. The project is committed to meeting LEED Silver standards with the inclusion of the following sustainability components:



- Sustainable exterior and interior building & site materials and products
- Building envelope compliance with the Stretch Energy Code
- Low-Emittance windows & doors
- Energy-efficient mechanical systems
- Indoor Air Quality and thermal comfort
- Energy-efficient lighting and electrical devices
- Energy Star appliances

Rojas

- · Cool roofs & trellis shading
- Solar-Panel Energy System 50% of the roof area with panels
- Sustainable and less water-intensive landscape materials
- Non-invasive plant materials
- Additional street trees along Mass Ave in front of CVS and this new building
- Site and building cooling strategies utilizing planting locations
- Waste reduction and recycling
- Storm water management

The building to be demolished and the new construction site is located on the same lot as the existing CVS store building and there are no plans to subdivide the lot with respect to the Applicant's building plans.

The Applicant and members of his team have paid close attention to comments made at prior multiple hearings before both the ARB and the Historical Commission with respect to comments made by Members of the ARB and the Historical Commission as well as other interested parties with respect to what many individuals would like to see located in place of the Atwood House once the Atwood House is demolished.

Both the CVS store and the Atwood House are located on the same lot and there can be no subdivision of the lot to accommodate zoning for either one standing on its own because of zoning bylaw constraints.

At the time of the CVS ARB hearing which took place in 2009, there was language contained in the decision to the effect that there was a contemplation on the part of the Members of the ARB that the Atwood House could be demolished however there was no time constraint related to any plans to demolish the building.

The 2009 CVS ARB Decision contains language allocating certain parking spaces for the Atwood House whether it was to remain, be modified, demolished, or reconstructed.

We believe the Atwood House was constructed in the 1890's and of course the CVS store was constructed in the year 2010.

The Atwood House has been vacant and in a state of disrepair for an extended period of time.

As a result, the Applicant was fined by the Town and has fully paid all fines relating to outstanding building code and/or other violations.

The Applicant has engaged the services of Andres T. Rojas, Rojas Design, Inc., who has prepared mixed-use plans with respect to the submission and is now ready to move

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821 Massachusetts Avenue, Arlington MA ARB – Impact Statement

RD 2958 09/05/2024

forward and obtain approval of the plans, demo the Atwood House, and construct a new mixed-use building all in accordance with the plans submitted to the ARB.

Development of the site will remove a significant "eyesore" on Massachusetts Avenue, the main thoroughfare threw the Town and, at the same time will add additional residential living space in the Town while maintaining a mixed-use component with respect to office use.

For all the above reasons the Applicant respectfully requests that his plans be approved by the ARB.

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821 MASSACHUSETTS AVENUE

ARLINGTON REDEVELOPMENT BOARD SUBMISSION - NEW CONSTRUCTION





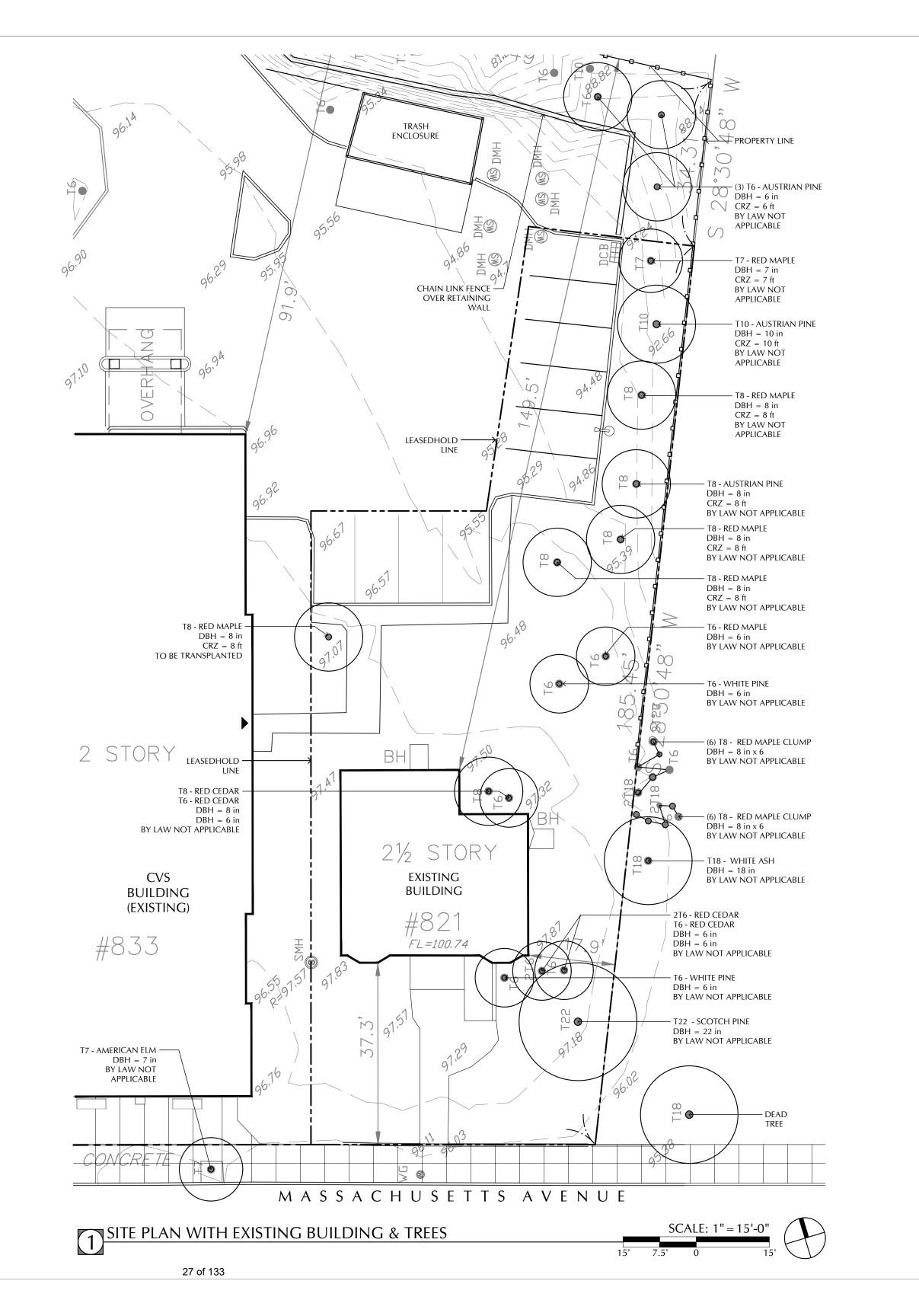
Civil Engineer Owner Architecture | Interior Design | Surveyor Landscape Architecture Rojas Design, Inc. Geoffrey Noyes Rober Survey Gala Simon Associates, Inc. Noyes Realty, LLP P.O. Box 40 46 Waltham Street Suite 2A 1072 Massachusetts Avenue 394 Lowell Street Suite 18 Lexington MA 02420 Marblehead MA 01945 Boston MA 02118 Arlington MA 02476 (781) 631-1123 (617) 720-4100 (781) 648-5533 (781) 266-8179 RD 2958

821 MASSACHUSETTS AVENUE ARLINGTON, MA 02476

SUBMISSION SET 09/05/2024

	SHEET LIST				
Sheet Number	Sheet Title				
	COVER SHEET				
EX- 01	SITE PLAN WITH EXISTING BUILDING & TREES				
TP- 01	TREE PROTECTION REMOVAL PLAN & DETAILS				
	PROPOSED PLOT PLAN BY ROBER SURVEY				
L- 01	PARTIAL BLOCK PLAN & ELEVATIONS - MASSACHUSETTS AVENUE				
L- 02	PROPOSED SITE LAYOUT & MATERIALS PLAN				
L- 03	PROPOSED PLANTING PLAN & PLANT LIST				
L- 04	3-STORY SHADOW STUDY				
L- 05	5-STORY SHADOW STUDY				
L- 06	rendered site plan				
A- 01	PROPOSED FIRST FLOOR & SECOND FLOOR PLANS				
A- 02	PROPOSED THIRD FLOOR & ROOF PLANS				
A- 03	PROPOSED BASEMENT PLAN, FRONT (SOUTH) & REAR (NORTH) ELEVATION				
A- 04	PROPOSED SIDE (EAST) ELEVATION & SIDE (WEST) ELEVATION				
A- 05	MATERIAL BOARD				
C- 01	EXISTING CONDITIONS PLAN				
C- 02	PROPOSED CONDITIONS DRAINAGE PLAN				
	BOSTON LIGHT SOURCE - PHOTOMETRIC SITE PLAN				

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MASSACHUSETTS
AVENUE
ARLINGTON MA
02476

ARLINGTON
REDEVELOPMENT
BOARD SUBMISSION

lob: 2958
Date: 09/05/2024
Scale: AS NOTED
Drawn: ISP
Checked: ATR

SITE PLAN WITH EXISTING BUILDING & TREES

Rojas Design, Inc.
Architecture
46 Waltham Street
Suite 2A
Interior Design
Boston MA 02118
Landscape Architecture
(617) 720-4100

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EX-01



MASSACHUSETTS AVENUE ARLINGTON MA 02476

ARLINGTON REDEVELOPMENT **BOARD SUBMISSION**

> 2958 09/05/2024 **AS NOTED** <u>ISP</u> ATR

TREE PROTECTION & **REMOVAL PLAN** & DETAILS

Rojas Design, Inc.

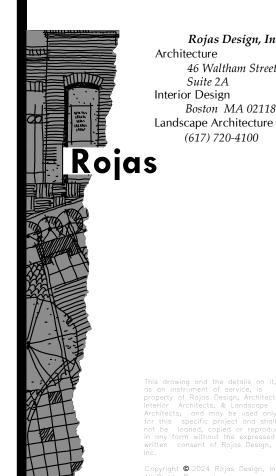
46 Waltham Street -

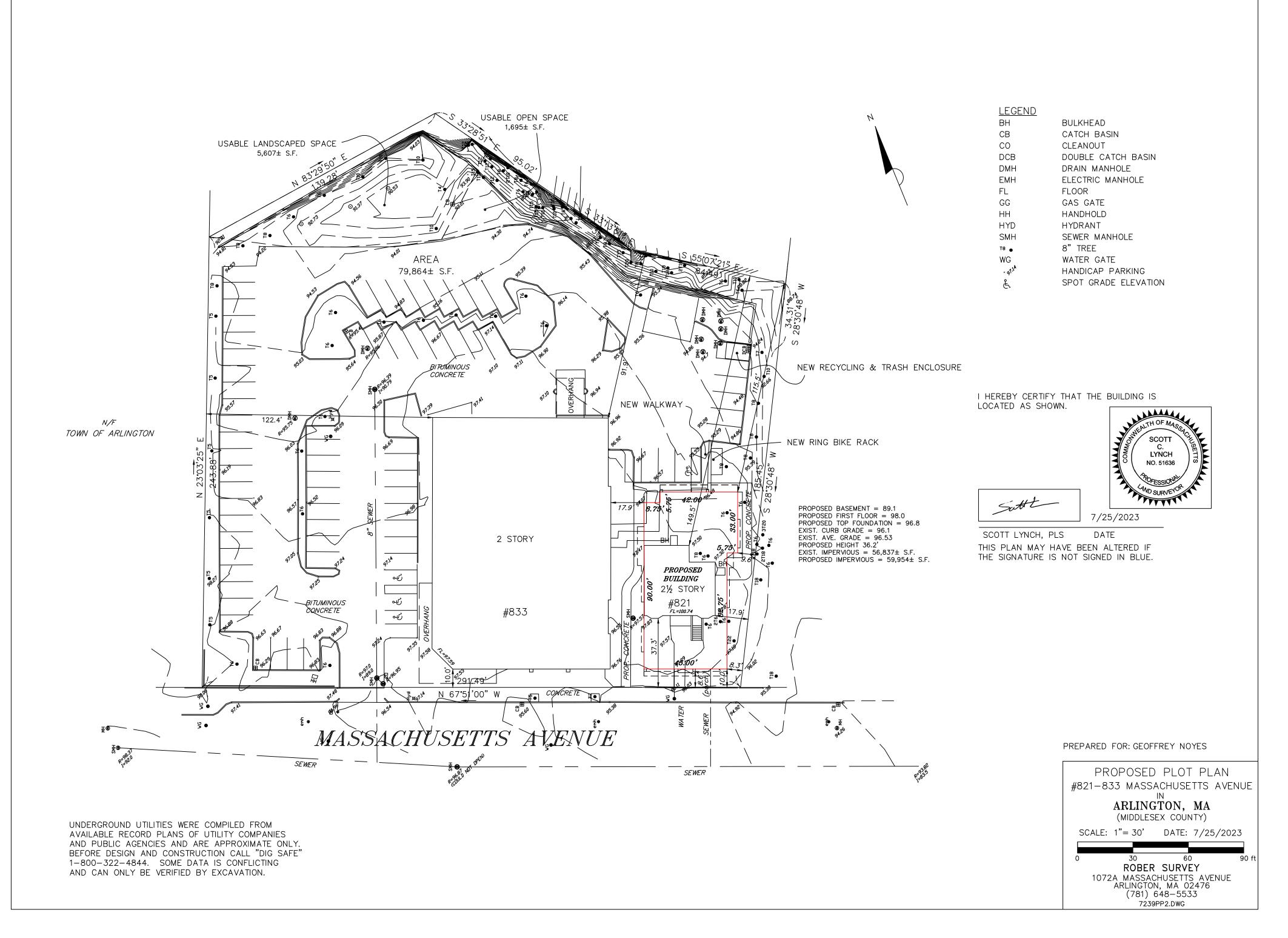
Boston MA 02118

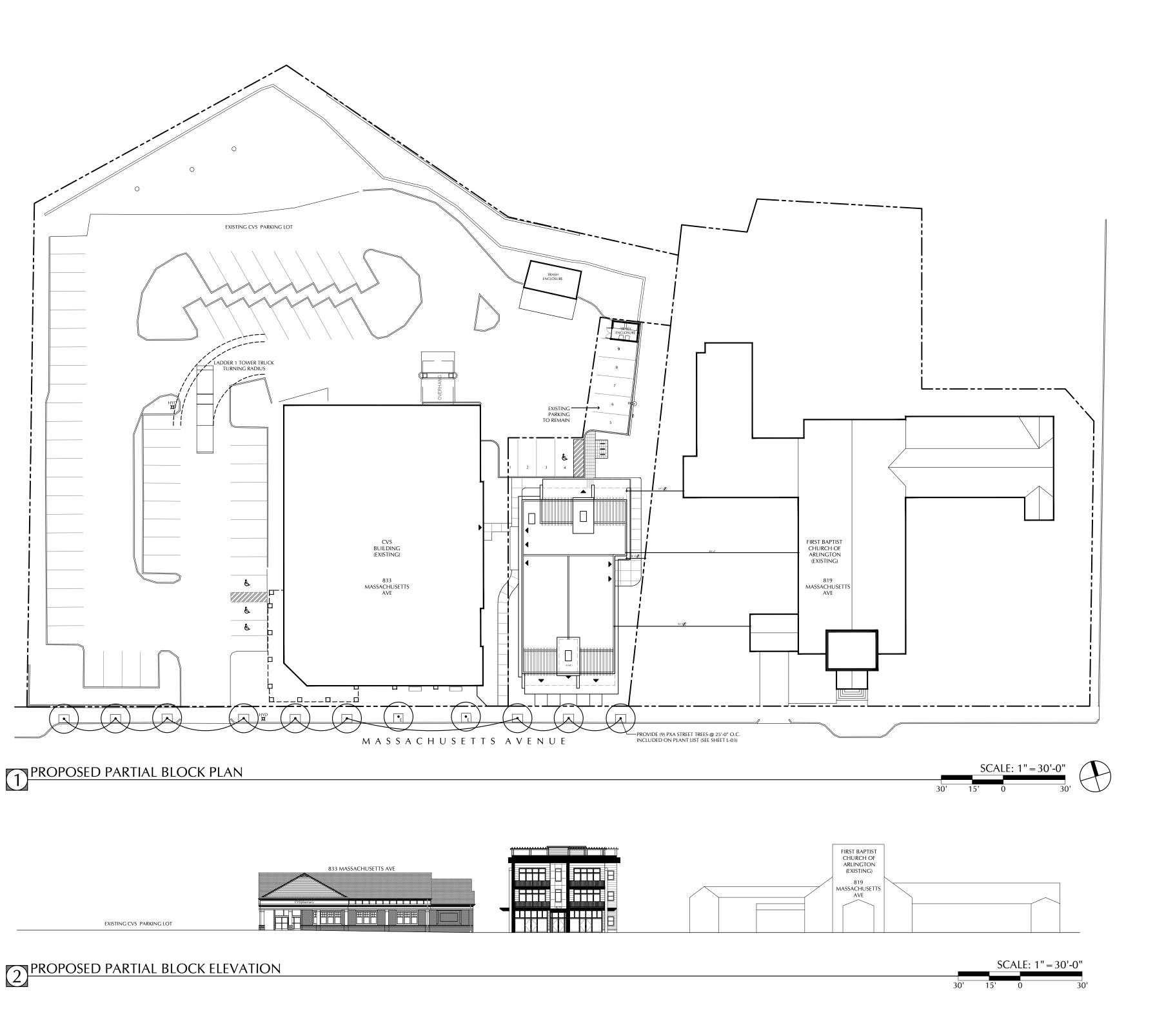
(617) 720-4100

TP-01

Suite 2A







MASSACHUSETTS
AVENUE
ARLINGTON MA
02476

ARLINGTON REDEVELOPMENT BOARD SUBMISSION

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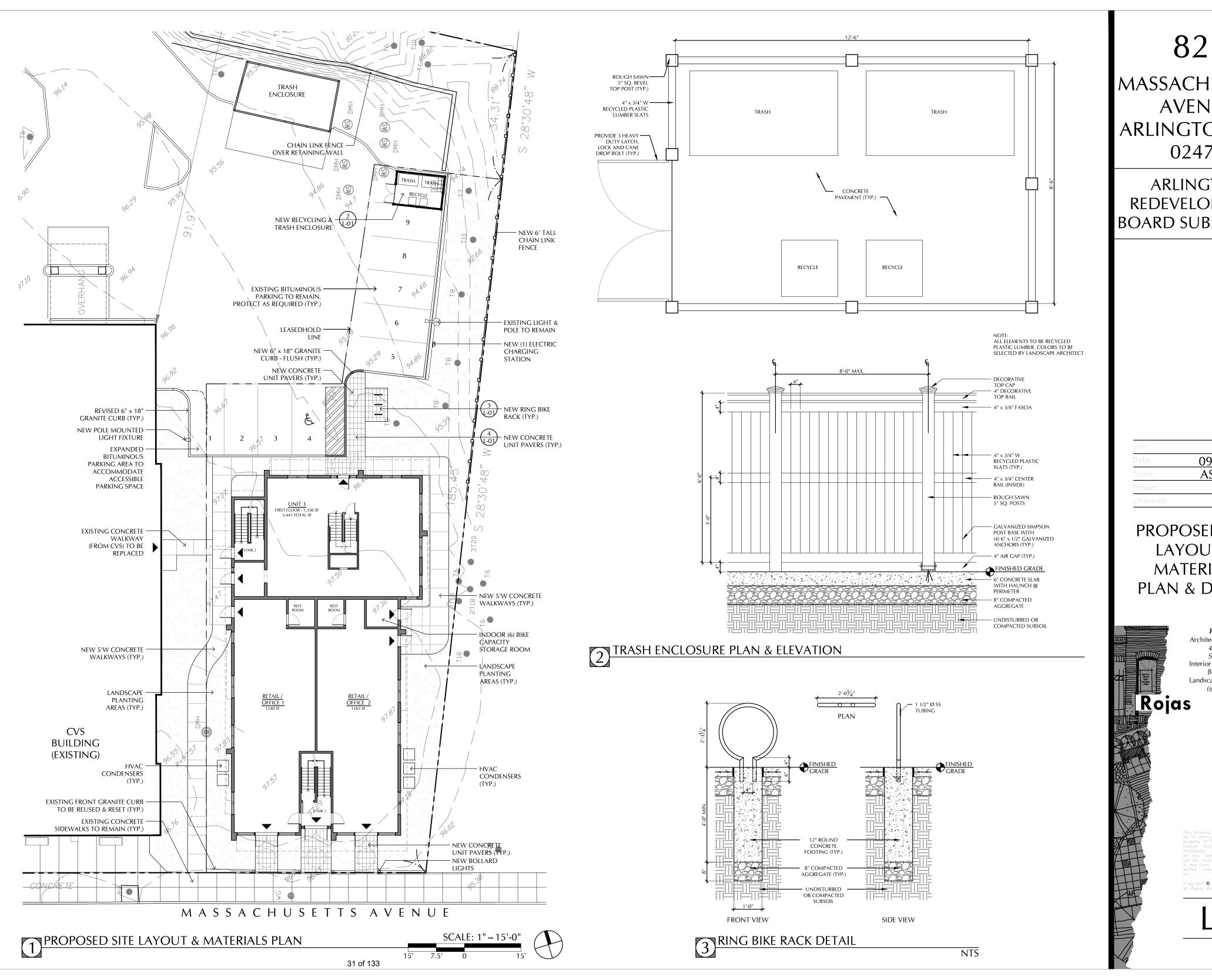
PROPOSED
PARTIAL
BLOCK PLAN
& ELEVATION

Rojas Design, Inc.
Architecture
46 Waltham Street Suite 2A
Interior Design
Boston MA 02118
Landscape Architecture
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L-01



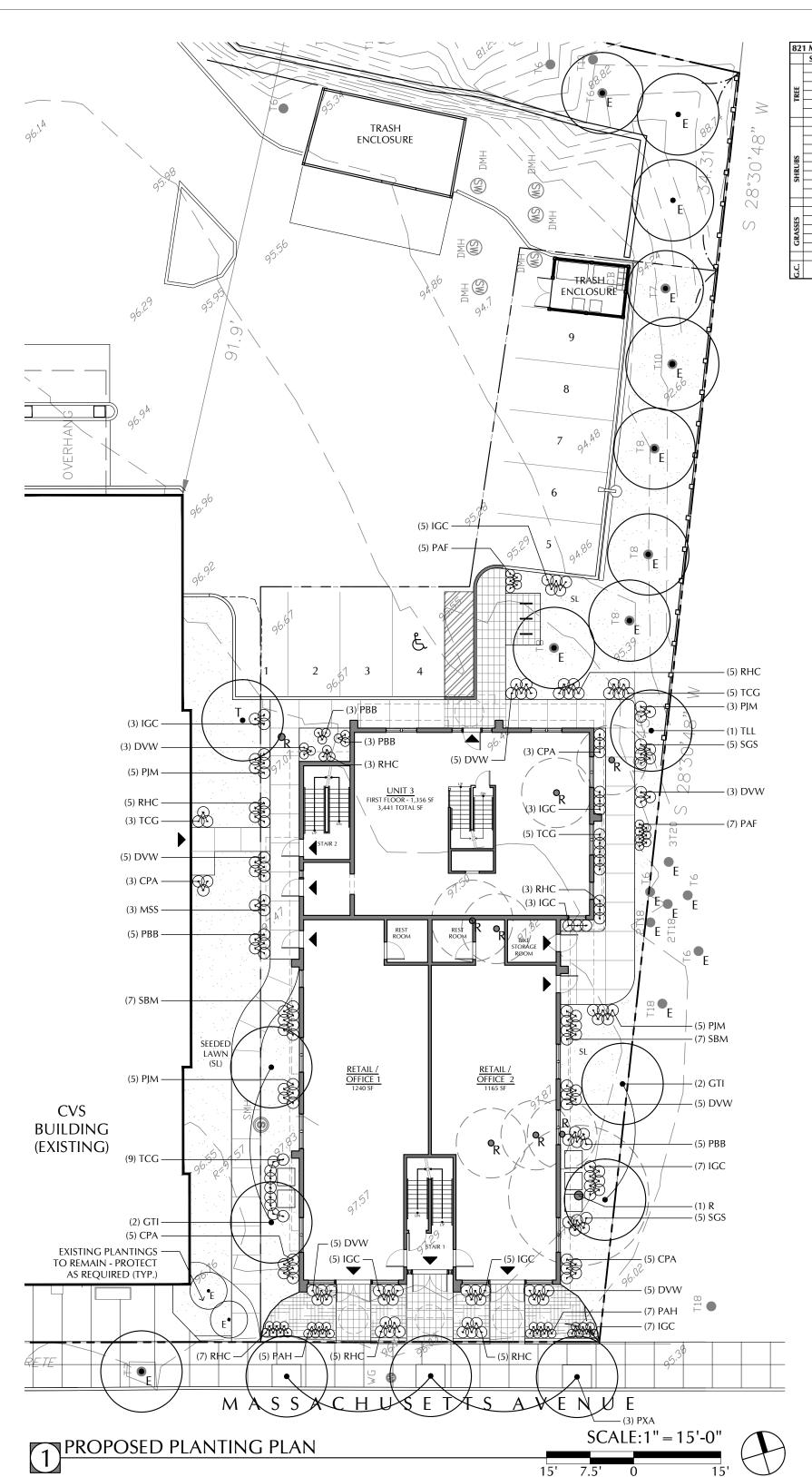
MASSACHUSETTS **AVENUE** ARLINGTON MA 02476

ARLINGTON REDEVELOPMENT **BOARD SUBMISSION**

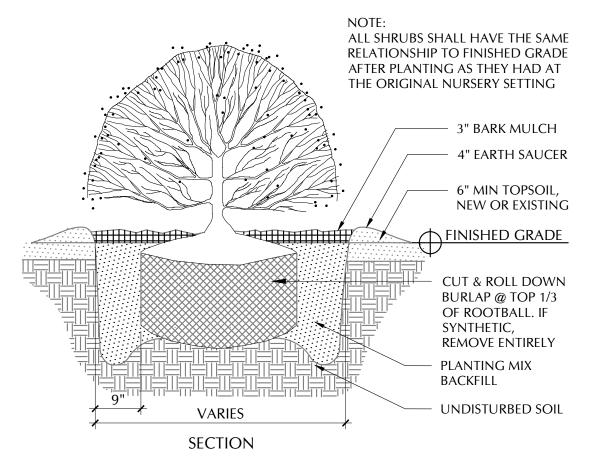
> 2958 09/05/2024 **AS NOTED** <u>ISP</u> ATR

PROPOSED SITE LAYOUT & **MATERIALS** PLAN & DETAIL

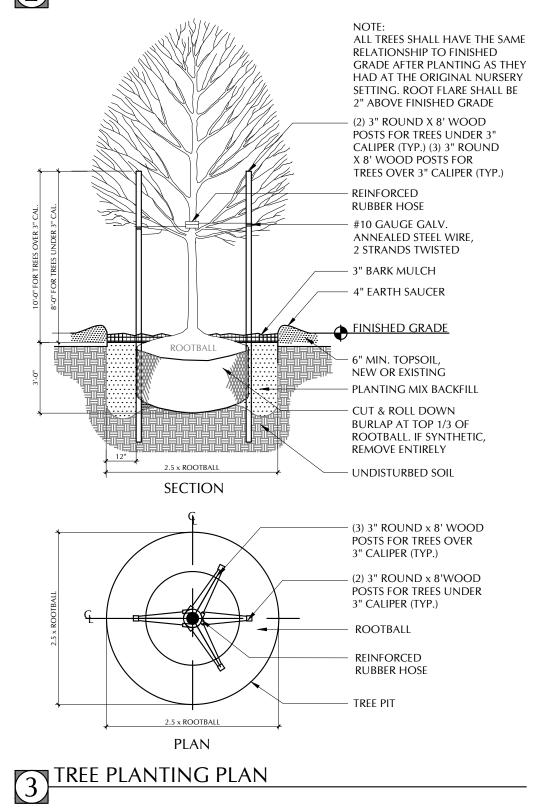




MASSACH	HUSE	ITS AVENUE, ARLINGTON MA	PLANT LIST			ROJAS DESIGN, INC.	RD 2958	09/05/2024
SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION		REMARKS	
E	11	EXISTING TREE	EXISTING TREE	IN PLACE	TO REMAIN	PROTECT AS REQUIRED - PROVIDE	CLASS 'A' PRUNING AS DIRECTEI	D BY L.A.
R	8	REMOVE TREE	REMOVE TREE	EXISTING	REMOVE	REMOVE TREE AND STUMP IN THEI	IR ENTIRETY	
T	1	TRANSPALNTED TREE - MAPLE TREE	TRANSPLANTED TREE	EXISTING	TRANSPALNTED	TRANSPLANT TREE, LOCATION AS S	SHOWN ON DRAWINGS	
GTI	4	GLEDITSIA TRIACANTHOS INERMIS	THORNLESS HONEY LOCUST	3"-3 1/2" CAL.	B & B	PRUNE BRANCHING TO 6'-0" ABO\	VE FINISHED GRADE	
PXA	9	PLATANUS X ACERIFOLIA	LONDON PLANE TREE	3"-3 1/2" CAL.	B & B	PRUNE BRANCHING TO 6'-0" ABO\	VE FINISHED GRADE	
TLL	1	TILIA CORDATA	LITTLE LEAF LINDEN	3"-3 1/2" CAL.	B & B	PRUNE BRANCHING TO 6'-0" ABO\	VE FINISHED GRADE	
CPA	16	CHAMAECYPARIS PISIFERA 'FILIFERA AUREA'	GOLDEN THREADLEAF CYPRESS	2'-0" - 2'-6" SPREAD	B & B	YELLOW/GOLD COLOR YEAR-ROU	ND - BROAD DOME FORM - SPACE	CING @ 2'-0" O.C EVERGREEN
DVW	31	RHODODENDRON 'DELAWARE VALLEY WHITE'	'DELAWARE VALLEY WHITE' AZALEA	2'-6" - 3'-0" TALL	B & B	WHITE FLOWERS - BLOOMS APRIL -	- MAY - SPACING AT 2'-6" O.C E	VERGREEN
IGC	38	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	2'-6" - 3'-0" TALL	B & B	EVERGREEN DENSE MOUNDED FOR	RM - SPACING AT 2'-6" O.C.	
PBB			BROWER'S BEAUTY ANDROMEDA	2'-6" - 3'-0" TALL	B & B			
PJM	18	RHODODENDRON 'PJM'	'PJM' RHODODENDRON	2'-6" - 3'-0" TALL	B & B	MAGENTA FLOWERS - BLOOMS LA	TE SPRING - EARLY SUMMER - SP/	CING AT 2'-6" O.C EVERGREEN
RHC	35	RHODODENDRON 'HINO-CRIMSON'	HINO-CRIMSON AZALEA	2'-6" - 3'-0" TALL	B & B	FUCHSIA FLOWERS - BLOOMS LATE	E SPRING EARLY SUMMER - SPACI	NG AT 2'-6" O.C EVERGREEN
SBM	14	SPIRAEA X BUMALDA 'ANTHONY WATERER'	SPIREA BUMALDA 'ANTHONY WATERER'	2'-6" - 3'-0" TALL	B & B	SMALL WHITE FLOWERS - BLOOMS	S IN MAY SPACING AT 2'-6" O.C.	
TCG	22	TAXUS CUSPIDATA 'GREENWAVE'	GREENWAVE JAPANESE YEW	2'-6" - 3'-0" SPREAD	B & B	EVERGREEN WITH LOW MOUNDIN	NG FORM SPACING AT 2'-6" O.C.	
LSP	340	LIRIOPE SPICATA	CREEPING LIRIOPE	12" SPREAD	1 GAL	FLOWERS LATE SUMMER WITH PAL	LE VIOLET FLOWERS - SPACING 8	PLANTS PER 10 SF OF BED
MSS	3	MISCANTHUS SINENSIS 'STRICTUS'	ZEBRA GRASS	4'-0" - 7'-0" TALL	3 GAL	GREEN AND YELLOW BANDED BL	ADES WITH YELLOW FLOWERS -	BLOOMS JULY - SEPTEMBER
PAF	12	PENNISETUM ALOPECUROIDES	FOUNTAIN GRASS	2'-6" - 5'-0" TALL	3 GAL	FOUNTAIN SHAPED FORM WITH D	DARK GREEN BLADES AND BUFF \	VHITE FLOWERS IN JULY - OCTOBER
PAH	12	PENNISETUM ALOPECUROIDES 'HAMELIN'	DWARF KARLY ROSE FOUNTAIN GRASS	1'-6" - 2'-6" TALL	3 GAL	DENSE CLUMPED GROWTH WITH	UPRIGHT MOUNDS OF PURPLE F	LOWERS
SGS	10	MISCANTHUS SINENSIS 'GRACILLIMUS'	SILVER OR EULALIA GRASS	4'-0" - 7'-0" TALL	3 GAL	UPRIGHT FORM WITH FEATHERY C	CREAM FLOWERS - BLOOMS IN LA	TE SEPTEMBER - OCTOBER
	470			PEARL'S PREMIUM	6" CLEAM LOAM	SLICE SEEDING OR HYDROSEEDING	G FOR FULL COVERAGE OF NOTE	D AREAS AND ALL AREAS DISTURBED BY
	E R T GTI PXA TLL CPA DVW IGC PBB PJM RHC SBM TCG LSP MSS PAF PAH	SYMBOL QTY E 11 R 8 T 1 GTI 4 PXA 9 TL 1 CPA 16 DVW 31 IGC 38 PBB 16 PJM 18 RHC 35 SBM 14 TCG 22 LSP 340 MSS 3 PAF 12 PAH 12 SGS 10	E 11 EXISTING TREE R 8 REMOVE TREE T 1 TRANSPALNTED TREE - MAPLE TREE GTI 4 GLEDITSIA TRIACANTHOS INERMIS PXA 9 PLATANUS X ACERIFOLIA TLL 1 TILIA CORDATA CPA 16 CHAMAECYPARIS PISIFERA 'FILIFERA AUREA' DVW 31 RHODODENDRON 'DELAWARE VALLEY WHITE' IGC 38 ILEX GLABRA 'COMPACTA' PBB 16 PIERIS 'BROWERS BEAUTY' PJIM 18 RHODODENDRON 'PJIM' RHC 35 RHODODENDRON 'PJIM' RHC 35 RHODODENDRON 'HINO-CRIMSON' SBM 14 SPIRAEA X BUMALDA 'ANTHONY WATERER' TCG 22 TAXUS CUSPIDATA 'GREENWAVE' LSP 340 LIRIOPE SPICATA MSS 3 MISCANTHUS SINENSIS 'STRICTUS' PAF 12 PENNISETUM ALOPECUROIDES PAH 12 PENNISETUM ALOPECUROIDES 'HAMELIN' SGS 10 MISCANTHUS SINENSIS 'GRACILLIMUS'	E 11 EXISTING TREE EXISTING TREE EXISTING TREE R 8 REMOVE TREE REMOVE TREE T 1 TRANSPAINTED TREE - MAPLE TREE TRANSPAINTED TREE GTI 4 GLEDITSIA TRIACANTHOS INERMIS THORNLESS HONEY LOCUST PXA 9 PLATANUS X ACERIFOLIA LONDON PLANE TREE TILL 1 TILIA CORDATA LITTLE LEAF LINDEN CPA 16 CHAMAECYPARIS PISIFERA 'FILIFERA AUREA' GOLDEN THREADLEAF CYPRESS DWW 31 RHODODENDRON 'DELAWARE VALLEY WHITE' 'DELAWARE VALLEY WHITE' AZALEA IGC 38 ILEX GLABRA 'COMPACTA' COMPACT INKBERRY PBB 16 PIERIS 'BROWERS BEAUTY' BROWER'S BEAUTY ANDROMEDA PJIM 18 RHODODENDRON 'PJIM' 'PJIM' RHODODENDRON RHC 35 RHODODENDRON 'HINO-CRIMSON' HINO-CRIMSON AZALEA SBM 14 SPIRAEA X BUMALDA 'ANTHONY WATERER' TCG 22 TAXUS CUSPIDATA 'GREENWAVE' GREENWAVE JAPANESE YEW LSP 340 LIRIOPE SPICATA CREENWAVE FOUNTAIN GRASS PAF 12 PENNISETUM ALOPECUROIDES FOUNTAIN GRASS SGS 10 MISCANTHUS SINENSIS 'STRICTUS' SILVER OR EULALIA GRASS SILVER OR EULALIA GRASS	SYMBOL QTY BOTANICAL NAME COMMON NAME SIZE E 11 EXISTING TREE EXISTING TREE IN PLACE R 8 REMOVE TREE REMOVE TREE EXISTING T 1 TRANSPALNTED TREE - MAPLE TREE TRANSPLANTED TREE EXISTING GTI 4 GLEDITSIA TRIACANTHOS INERMIS THORNLESS HONEY LOCUST 3"-3 1/2" CAL. 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B & B PRUNE BRANCHING TO 6"-0" ABO' CPA 16 CHAMAECYPARIS PISIFERA "FILIFERA AUREA" GOLDEN THREADLEAF CYPRESS 2"-0" - 2"-6" SPREAD B & B PRUNE BRANCHING TO 6"-0" ABO' DWW 31 RHODODENDRON "DELAWARE VALLEY WHITE" "DELAWARE VALLEY WHITE" AZALEA 2"-6" - 3"-0" TALL B & B WHITE FLOWERS - BLOOMS APRIL CC 38 ILEX GLABRA "COMPACTA" COMPACT INKBERRY 2"-6" - 3"-0" TALL B & B EVERGREN DENSE MOUNDED FOR PBB 16 PIERIS "BROWERS BEAUTY" BROWER'S BEAUTY ANDROMEDA 2"-6" - 3"-0" TALL B & B EVERGREN DENSE MOUNDED FOR PBB 16 PIERIS "BROWERS BEAUTY" BROWER'S BEAUTY ANDROMEDA 2"-6" - 3"-0" TALL B & B EVERGREN DENSE MOUNDED FOR PIPM" HODODENDRON "IMDO-CRIMSON" HINO-CRIMSON AZALEA 2"-6" - 3"-0" TALL B & B EVERGREN DENSE MOUNDED FOR THE METAL TO THE ADDITION TO THE METAL TO THE ALL'S THE ADDITION TO THE METAL TO THE ADDITION TO THE ADDI	SYMBOL QTY BOTANICAL NAME E 11 EXISTING TREE EXISTING TREE IN PLACE TO REMAIN R 8 REMOVE TREE EXISTING REMOVE TREE AND STUMP IN THEIR ENTIRETY T 1 IT RANSPALNTED TREE -MAPLE TREE TRANSPLANTED TREE EXISTING TRANSPALNT TREE, LOCATION AS SHOWN ON DRAWINGS GTI 4 GLEDITSIA TRIACANTHOS INERMIS THORNLESS HONEY LOCUST 3°-3 1/2" CAL. B & B PRUNE BRANCHING TO 6-0° ABOVE FINISHED GRADE PXA 9 PLATANUS X ACERIFOLIA LONDON PLANE TREE 3°-3 1/2" CAL. B & B PRUNE BRANCHING TO 6-0° ABOVE FINISHED GRADE TIL 1 TILLA CORDATA LUTTLE LEAF LINDEN 3°-3 1/2" CAL. B & B PRUNE BRANCHING TO 6-0° ABOVE FINISHED GRADE CPA 16 CHAMAECYPARIS PISIFERA "FILIFERA AUREA" GOLDEN THREADLEAF CYPRESS 2-0°-2-6° SPREAD B & B PRUNE BRANCHING TO 6-0° ABOVE FINISHED GRADE LOVW 31 RHODODENDRON "DELAWARE VALLEY WHITE" DELAWARE VALLEY WHITE" ADDRESS 2-0°-2-0° SPREAD B & B WHITE FLOWERS - BLOOMS APRIL -MAY -SPACING AT 2-6° O.CE BBB 16 PIERIS "BROWERS BEAUTY" BROWNER'S BEAUTY ADDROMED A 2-6°-3-0° TALL B & B EVERGREEN DENSE MOUNDED FORM -SPACING AT 2-6° O.CE BB 16 PIERIS "BROWERS BEAUTY" BROWNER'S BEAUTY ADDROMED A 2-6°-3-0° TALL B & B B EVERGREEN DENSE MOUNDED FORM -SPACING AT 2-6° O.CE BB 4 RHODODENDRON "INIO-CRIMSON AZALEA 2-6°-3-0° TALL B & B B FUCHSIA FLOWERS - BLOOMS LATE APRIL SPACING AT 2-6° O.C. TCG 22 TAXUS CUSPIDATA "GREENWAVE" GREENWAVE JAPANESE YEW LSP 340 LIRIOPE SPICATA CREENWAVE GREEN WAS PARKED. SPACING AT 2-6° O.C. TCG 22 TAXUS CUSPIDATA "GREENWAVE" GREENWAVE JAPANESE YEW 2-6°-3-0° SPREAD B & B B EVERGREEN WITH LOW MOUNDING FORM SPACING AT 2-6° O.C. LSP 340 LIRIOPE SPICATA CREENWAVE GREEN BLADES TRICUSES TRIC



SHRUB PLANTING DETAIL



821

MASSACHUSETTS AVENUE ARLINGTON MA 02476

ARLINGTON
REDEVELOPMENT
BOARD SUBMISSION

ob: 2958
late: 09/05/2024
cale: AS NOTED
lrawn: ISP
Checked: ATR

PROPOSED
PLANTING PLAN
& PLANT LIST



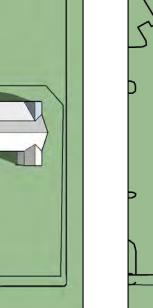
Rojas Design, Inc.
Architecture
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Boston MA 02118
Landscape Architecture
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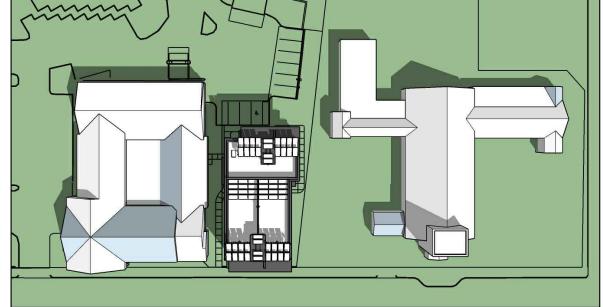
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L-03



2 SUN SHADOW @ 8:00 AM

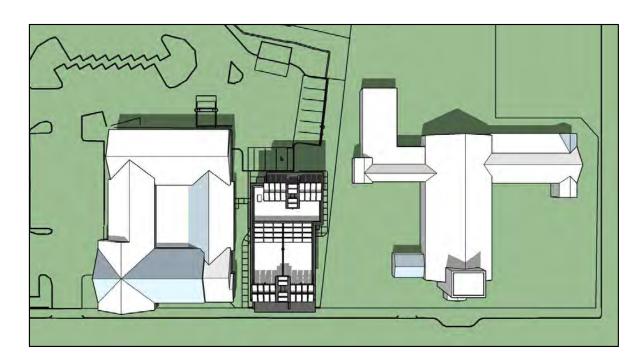




<u>@ 10:00 AM</u>



6 <u>@ 4:00 PM</u>



<u>@ 12:00 PM</u>



7 @ 6:00 PM

821

MASSACHUSETTS **AVENUE** ARLINGTON MA 02476

ARLINGTON REDEVELOPMENT **BOARD SUBMISSION**

> 2958 09/05/2024 AS NOTED ISP ATR

3-STORY **SHADOW** STUDY ON 09/04/2024

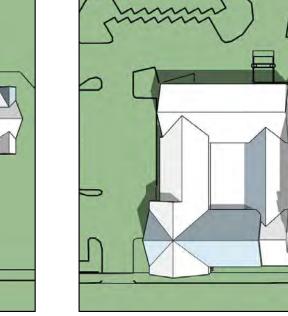
Rojas Design, Inc. 46 Waltham Street -Suite 2A Boston MA 02118 Landscape Architecture Rojas (617) 720-4100

5 SUN SHADOW @ 2:00 PM

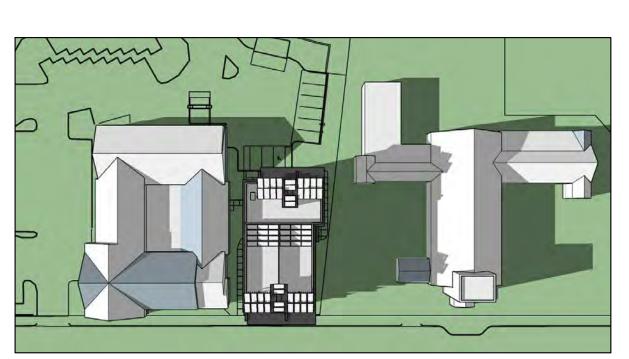




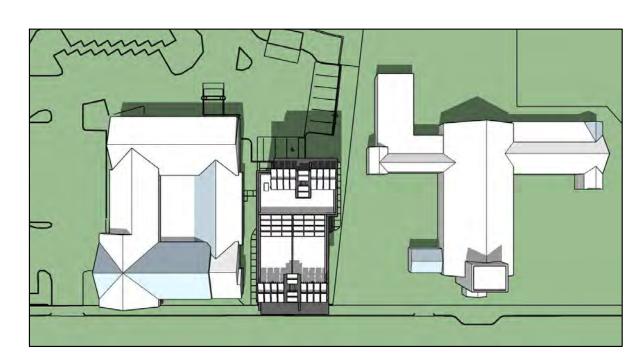
2 SUN SHADOW @ 8:00 AM



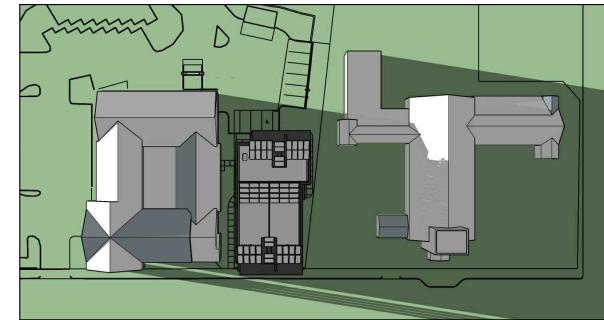
<u>@ 10:00 AM</u>



6 <u>@ 4:00 PM</u>



4 @ 12:00 PM



@ 6:00 PM

MASSACHUSETTS
AVENUE
ARLINGTON MA
02476
ARLINGTON

821

ARLINGTON
REDEVELOPMENT
BOARD SUBMISSION

Job:	2958
Date:	09/05/2024
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Drawn:	ISP
Checked:	ATR

5-STORY SHADOW STUDY ON 09/04/2024

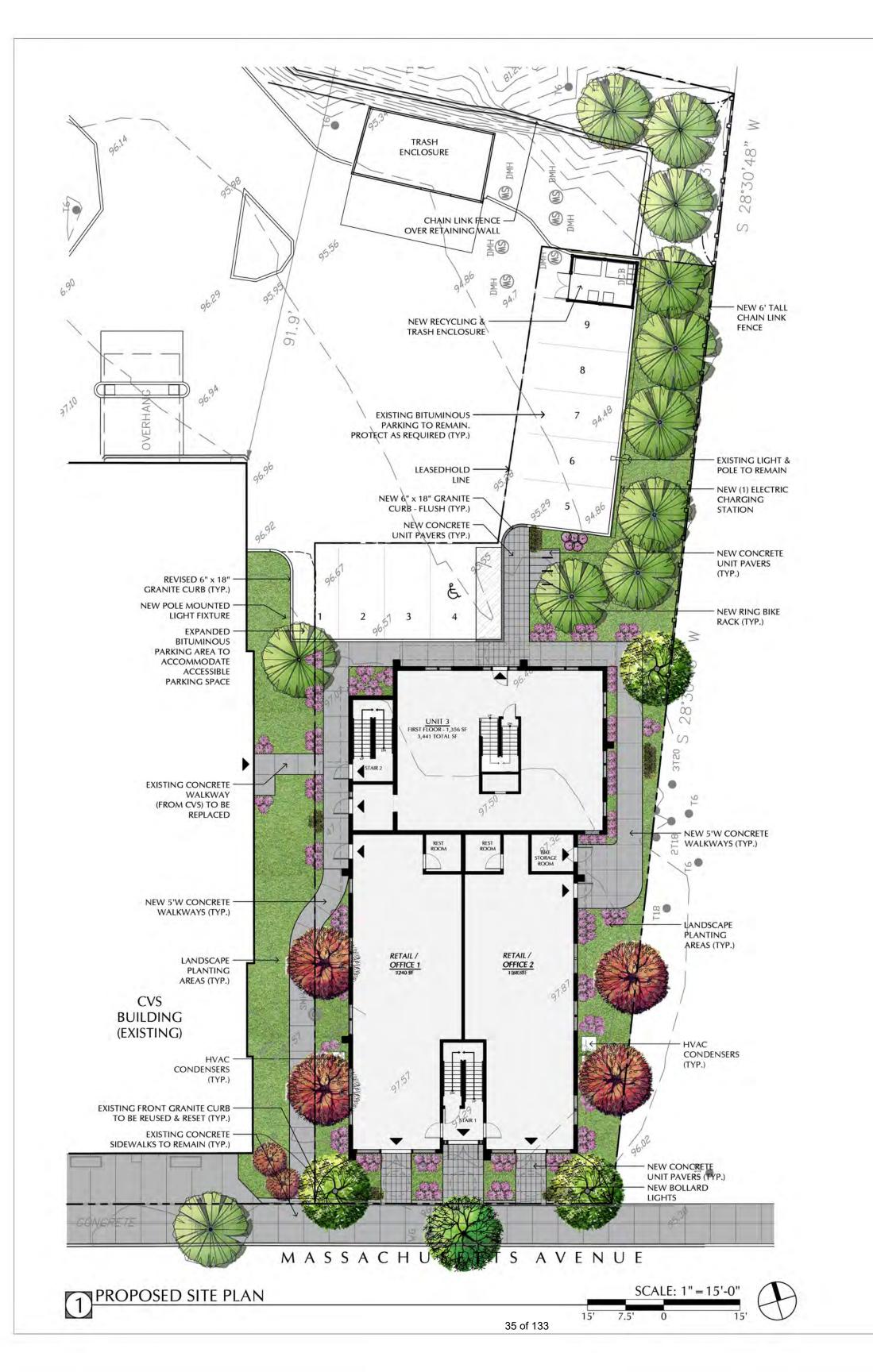


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L-05





MASSACHUSETTS
AVENUE
ARLINGTON MA
02476

ARLINGTON REDEVELOPMENT BOARD SUBMISSION

2958

Date: 09/05/2024

Scale: AS NOTED

Orewe: ISP

Cheeked: ATR

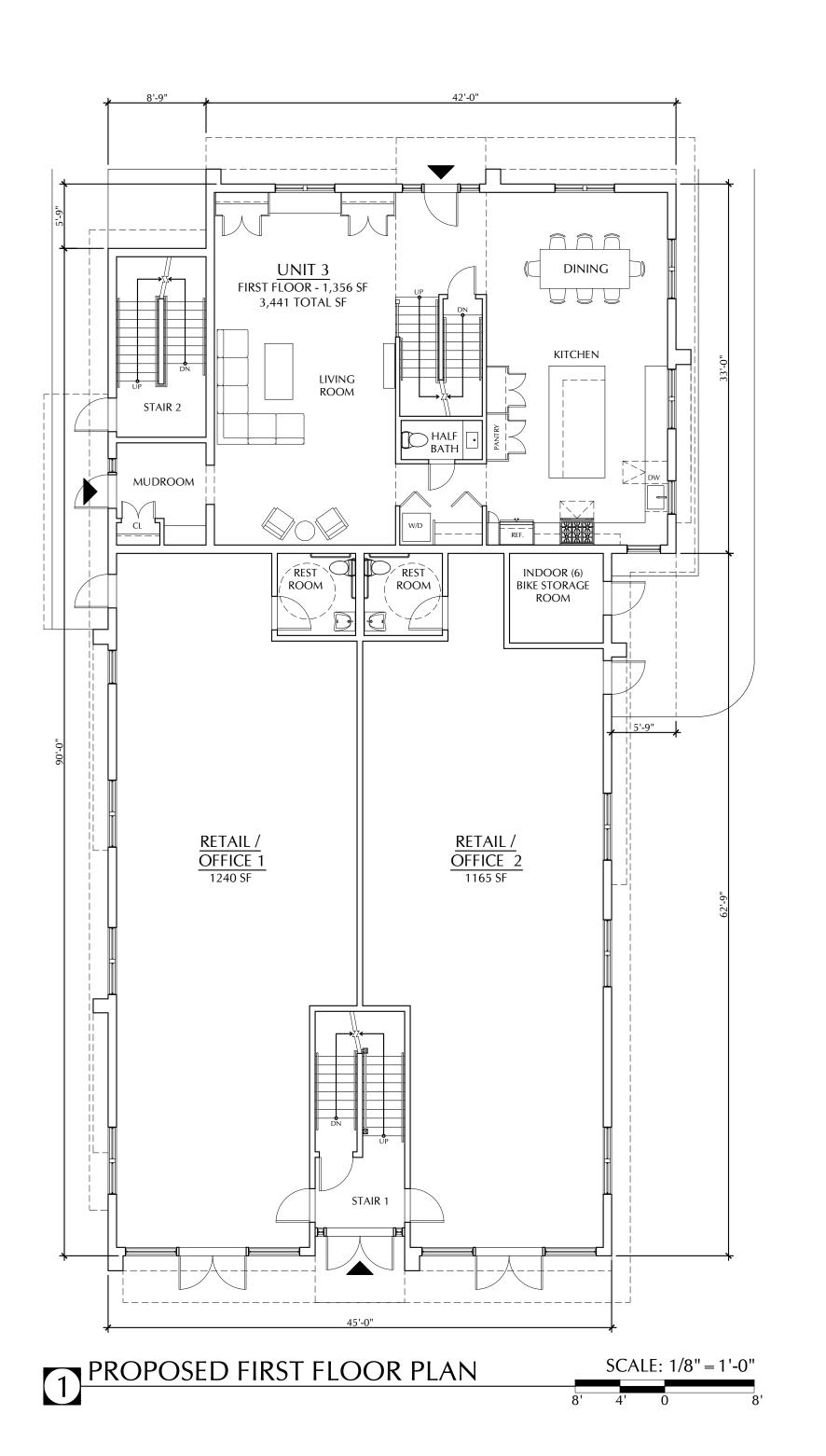
RENDERED SITE PLAN

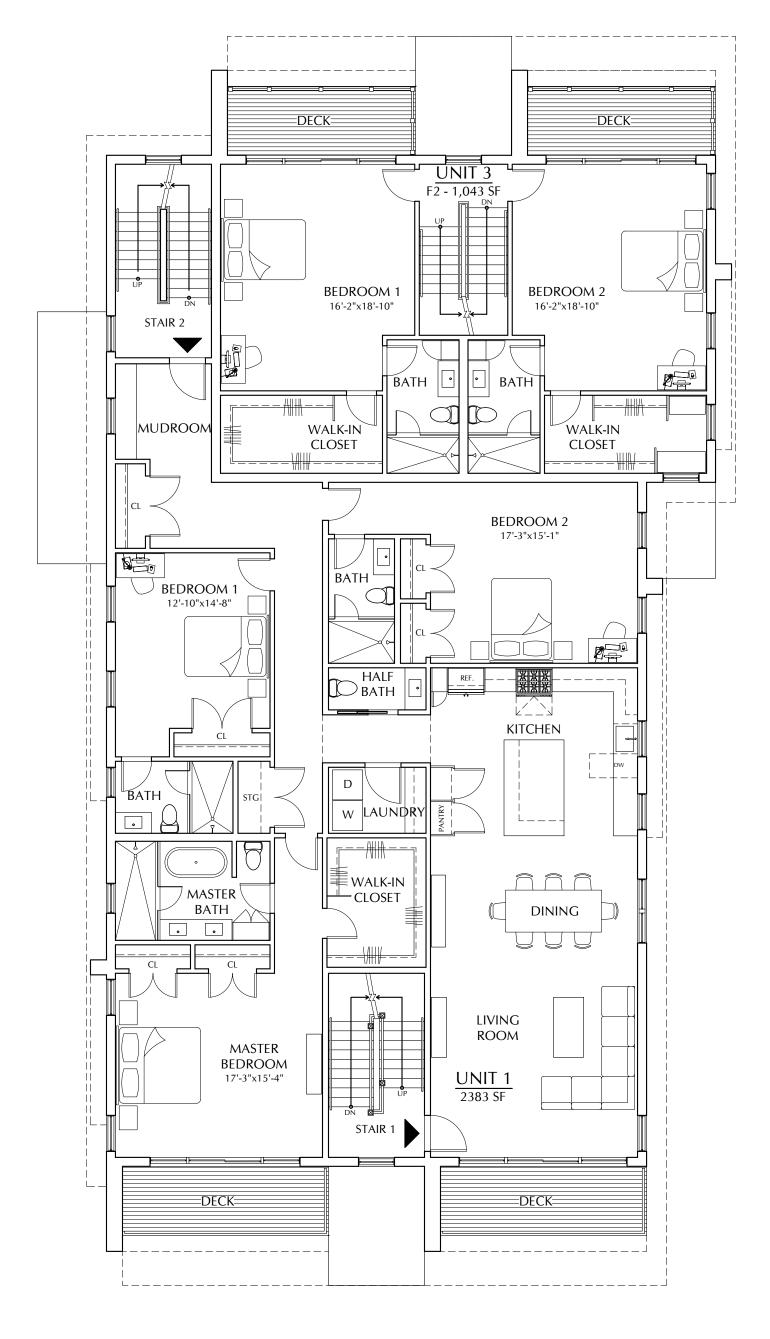


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L-06





821 **MASSACHUSETTS AVENUE** ARLINGTON MA 02476 ARLINGTON

REDEVELOPMENT

BOARD SUBMISSION

2958 09/05/2024 AS NOTED ISP ATR Checked:

PROPOSED FIRST FLOOR & SECOND FLOOR **PLANS**

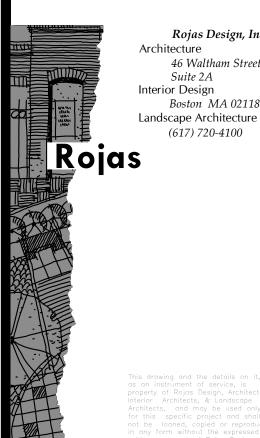
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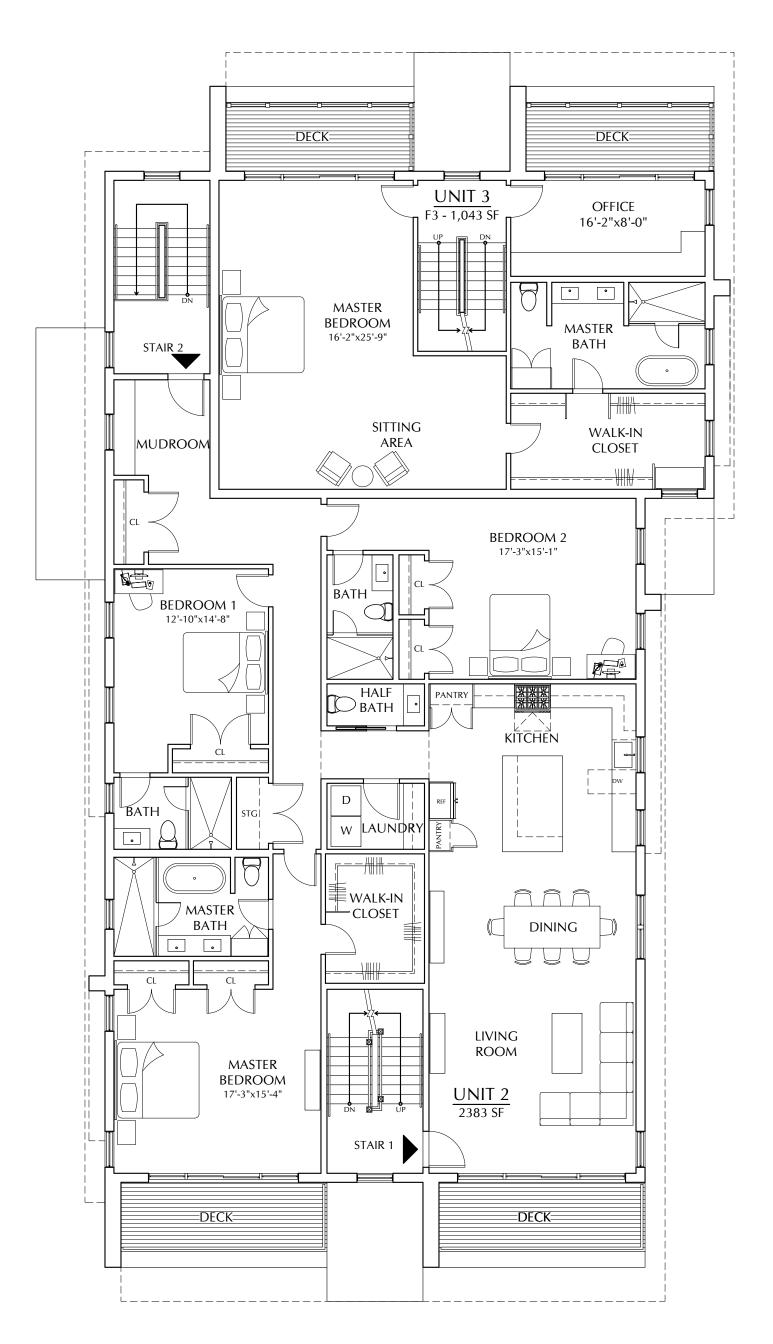
Suite 2A



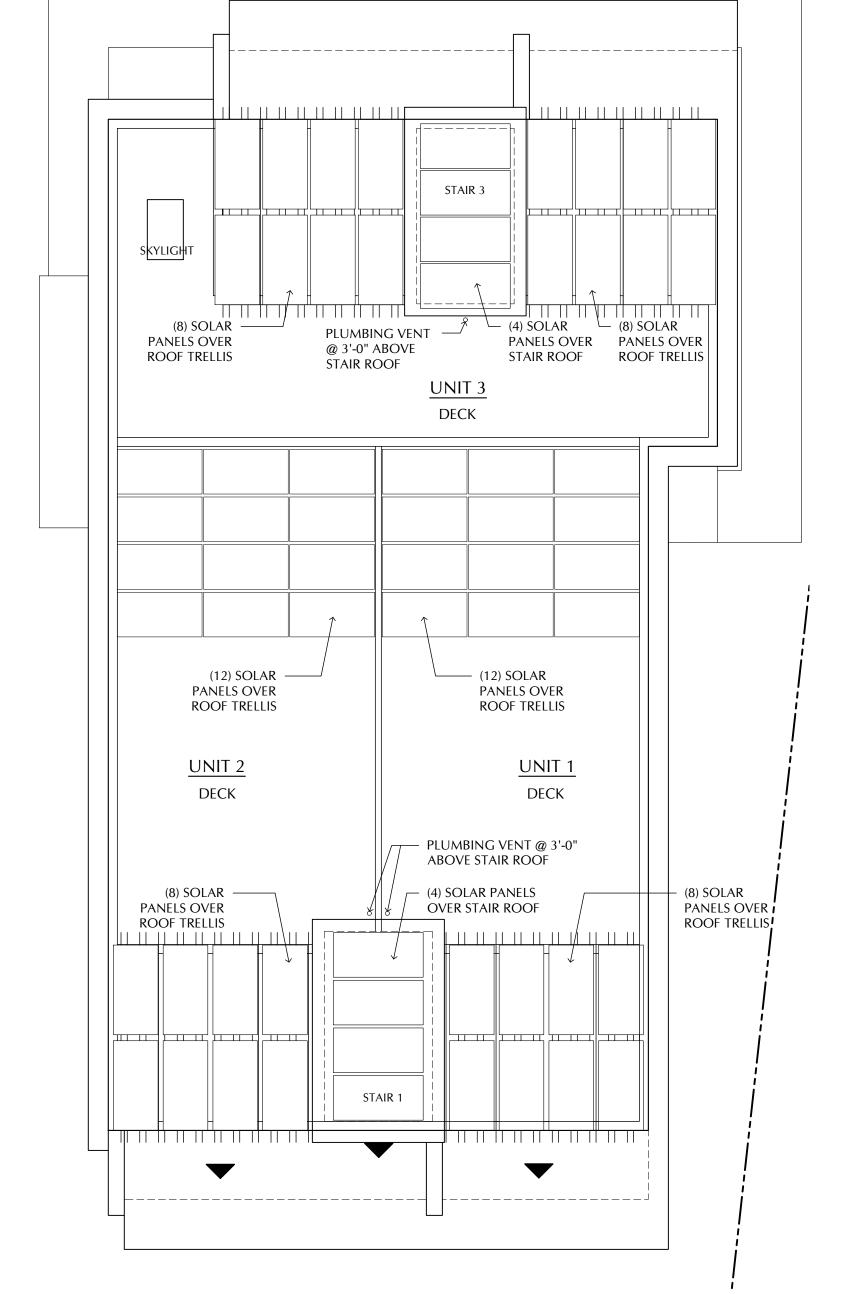
PROPOSED SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"

8' 4' 0 8'







MASSACHUSETTS AVENUE ARLINGTON MA 02476

821

ARLINGTON
REDEVELOPMENT
BOARD SUBMISSION

Job:	2958
Date:	09/05/2024
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Drawn:	ISP
Checked:	ATR

PROPOSED
THIRD FLOOR
& ROOF PLAN

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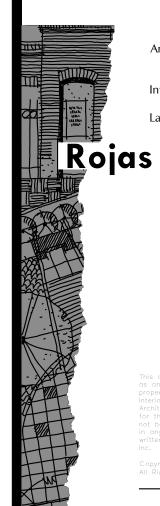
Boston MA 02118

Suite 2A

Landscape Architecture

(617) 720-4100

Architecture

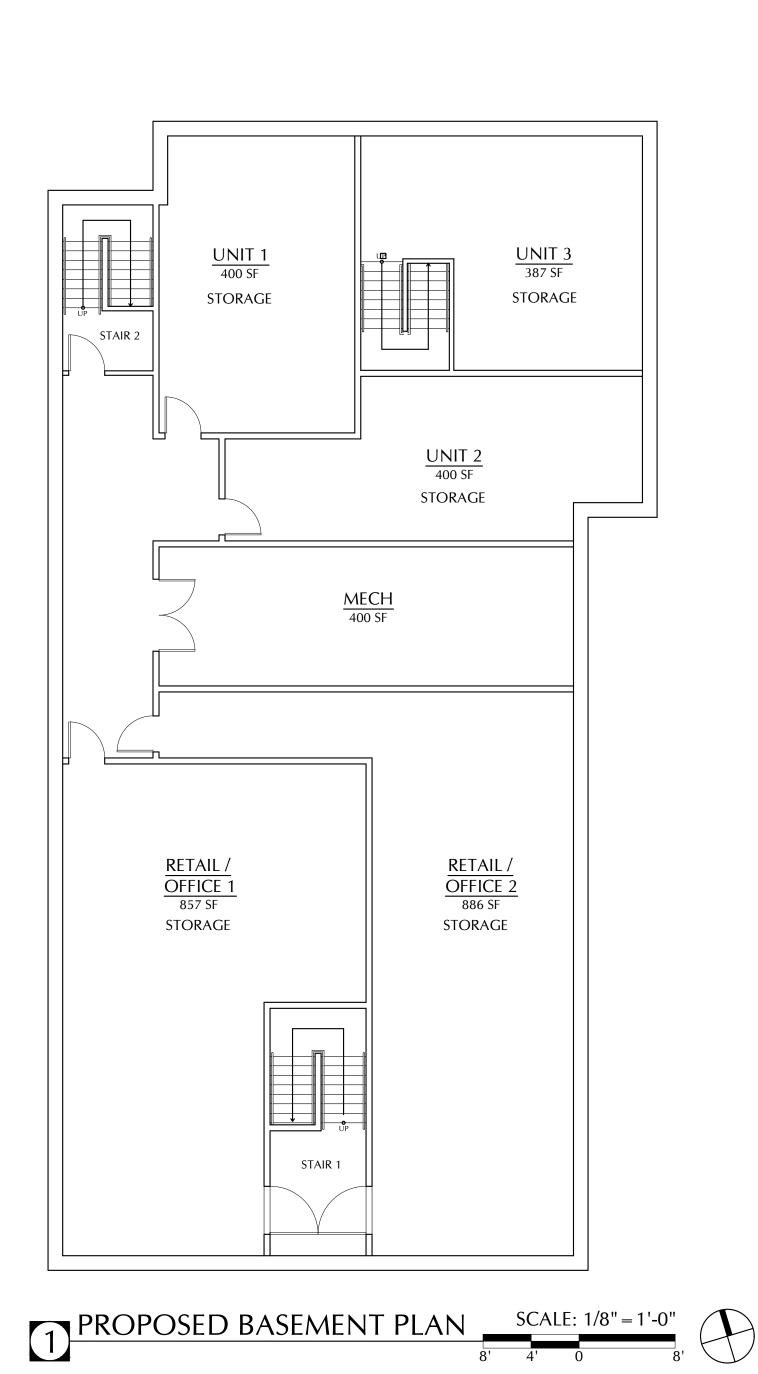


PROPOSED ROOF PLAN

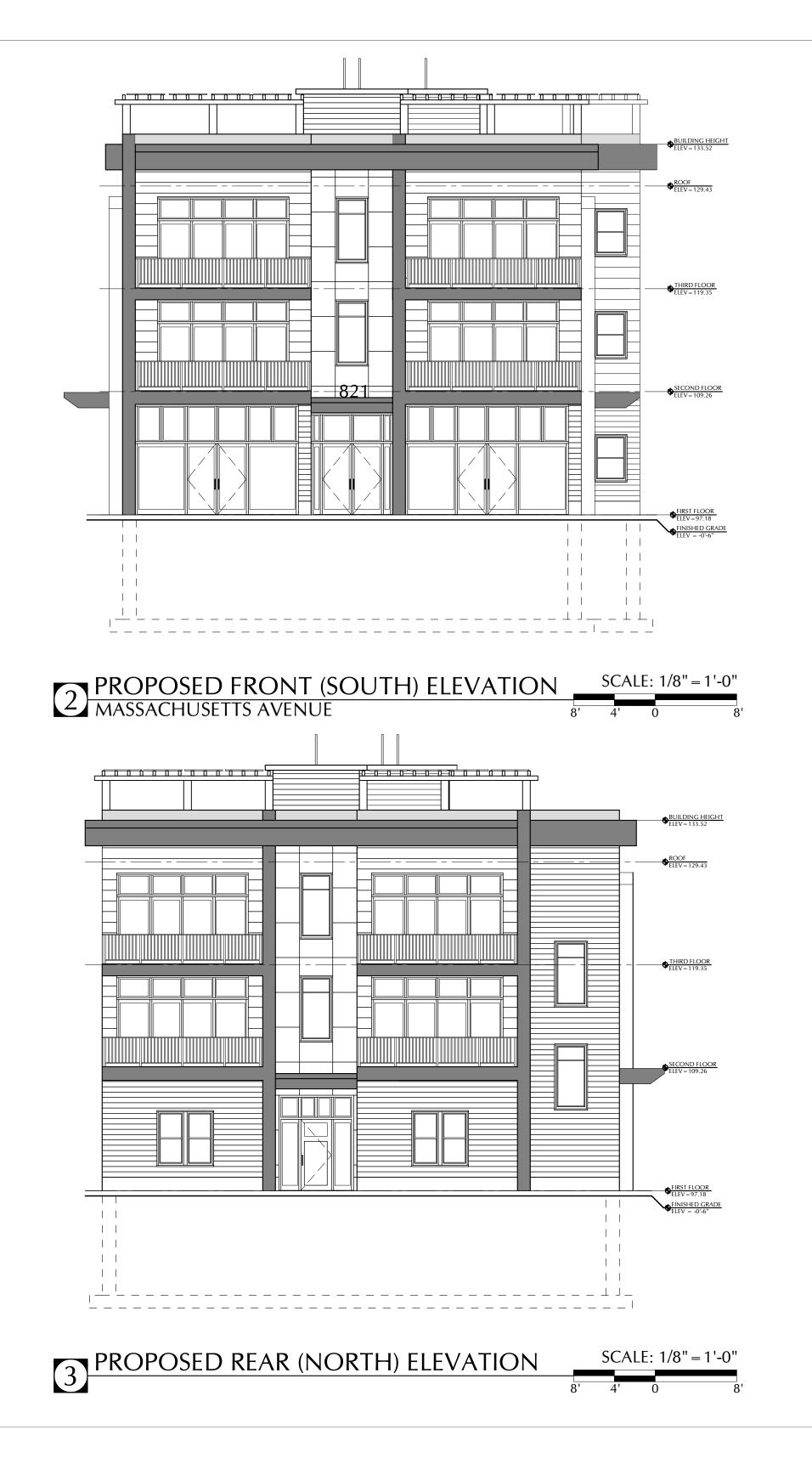
REFER TO SOLAR PACKAGE FOR
PANEL & SYSTEM SPECIFICS

SCALE: 1/8" = 1'-





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821

MASSACHUSETTS AVENUE ARLINGTON MA 02476

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PROPOSED
BASEMENT PLAN,
FRONT (SOUTH)
ELEVATION &
REAR (NORTH)
ELEVATION

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A-03



821

MASSACHUSETTS
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02476

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PROPOSED
SIDE (EAST) &
SIDE (WEST)
ELEVATIONS



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A-04

'RAILCRAFT' - ALUMINUM RAILINGS, POWDER COATED ALUMINUM PICKET RAILING SYSTEM 'RIDEAU BROWN', PICKETS 'POWDER COAT SATIN ALUMINUM'

'EQUITONE' - THROUGH-COLORED FIBER CEMENT, VENTILATED RAINSCREEN FACADE SYSTEM; 'TECTIVA' TEXTURE, 'TE10'

'EQUITONE' - THROUGH-COLORED FIBER CEMENT, VENTILATED RAINSCREEN FACADE SYSTEM; 'PICTURA' TEXTURE, 'PA944'

'KAWNEER' - ALUMINUM STOREFRONT — ENTRANCE SYSTEM, DOORS & WINDOWS ' #40 DARK BRONZE' **ANODIZED FINISH**

'TREX' - TRANSCEND COMPOSITE **DECKING 'HAVANA GOLD'**

'LONGBOARD ARCHITECTURAL PRODUCTS' - EXTRUDED ALUMINUM SOFFIT PLANK SYSTEM 'DARK ACACIA' WOOD GRAIN FINISH

'LONGBOARD ARCHITECTURAL PRODUCTS' - PANELBOARD 'SMOOTH SATIN ALUMINUM FINISH' 821

MASSACHUSETTS **AVENUE** ARLINGTON MA 02476

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Job:	2958
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MATERIAL BOARD



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Job No. 2422 | Date: 9/6/2024 Drawn By: AG | Scale: AS SHOWN Rev# | Date: | Description:



(- ()

SAFETY NOTE:

CONTRACTOR IS TO IMPLEMENT ALL NECESSARY SAFETY AND CONSTRUCTION MEASURES AND PROCEDURES FOR THE CONSTRUCTION OF THE PROJECT. STRICT COMPLIANCE WITH FEDERAL, STATE AND LOCAL SAFETY AND CONSTRUCTION REQUIREMENTS IS MANDATORY.

> ____2"X2"X36" WOOD STAKES PLACED 10' O.C. COMPOST FILTER TUBES (12" TYP.) TO PROTECTED AREA UNDISTURBED EXISTING MATERIAL.

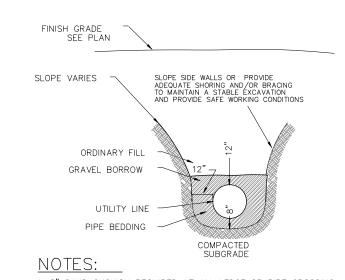
1 EROSION CONTROL C-0 SCALE: NTS

CONTACT THE PROPER AUTHORITIES IN WRITING TO CONFIRM THE LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE INCURRED DURING CONSTRUCTION TO ANY UTILITY SHALL BE REPAIRED BY THE CONTRACTOR AT NO

CONTRACTOR TO REFER TO A SURVEYOR PLOT PLAN FOR ACCURATE OFFSETS TO PROPERTY

SOIL TEST DATAPerformed by Gala Simon Associates, Inc., on 9/5/24

Mottles	Other	Elevation
_	-	86.9
_	-	86.2
Mottles	$\it 0ther$	Elevation
_	-	87.3
_	-	86.9
Mottles	$\it 0ther$	Elevation
_	-	95.0
_	_	90.7
_	_	88.8



1. 8" SAND CUSHION REQUIRED AT ALL LEDGE OR PIPE CROSSING
2. NO STONE GREATER THAN 3" TO BE PLACED OVER PIPE TO FINISH GRADE
3. NO STONE GREATER THAN 3" WITHIN 12" OF PIPE.
4. GRAVEL BORROW SHALL COMPLY WITH MHD M1.03.0 TYPE C
5. PIPE BEDDING SHALL COMPLY WITH MHD M1.04.1

2 TYP. UTILITY TRENCH
C-0 SCALE: NTS

ROAD

PROVIDE APPROPRIATE TRANSITION BETWEEN

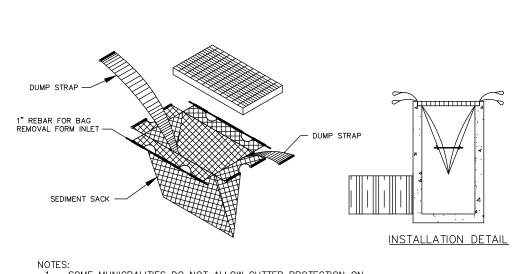
THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING ROAD. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO EXISTING ROAD SHALL BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE AND ROAD

20' MINIMUM

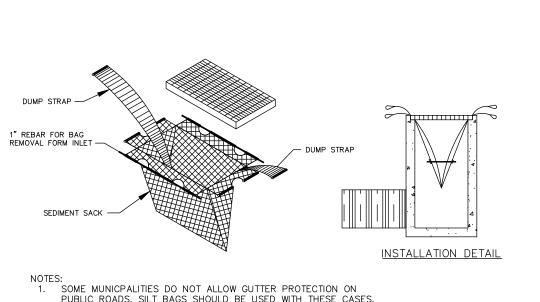
-6" MINIMUM

PROFILE VIEW



1. SOME MUNICPALITIES DO NOT ALLOW GUTTER PROTECTION ON PUBLIC ROADS. SILT BAGS SHOULD BE USED WITH THESE CASES.

2. BAGS SHOULD BE CLEANED OUT AFTER EVERY RAIN EVENT AND/OR AS NEEDED.



4 STABILIZED CONSTRUCTION ENTRANCE C-0 SCALE: NTS

EXISTING GROUND

EXISTING GROUND

CRUSHED STONE -

NOT FOR CONSTRUCTION

2½ STORY #821 FL=100,74

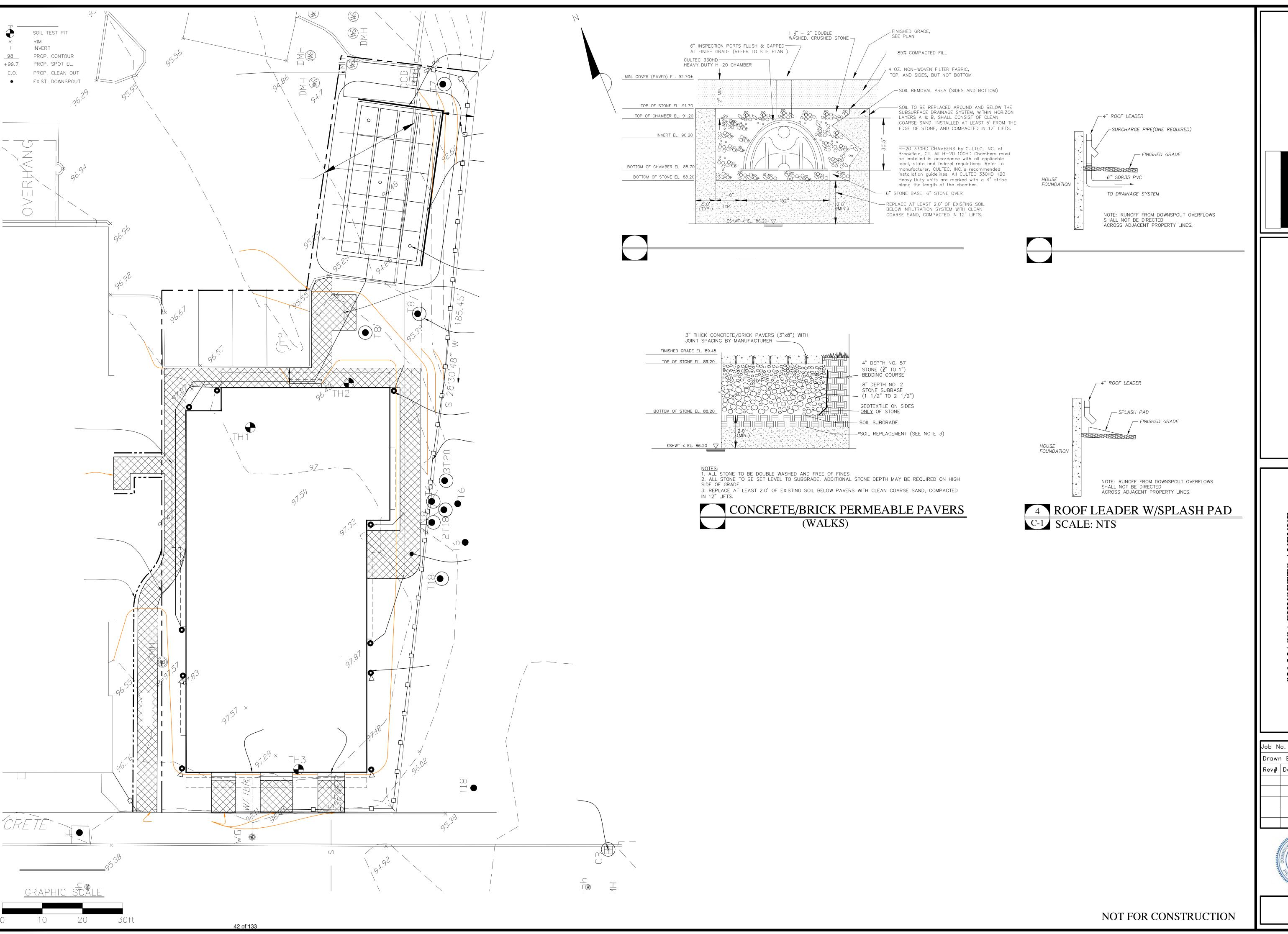
41 of 133

SOIL TEST PIT

PROP. CONTOUR PROP. SPOT EL. PROP. CLEAN OUT

INVERT

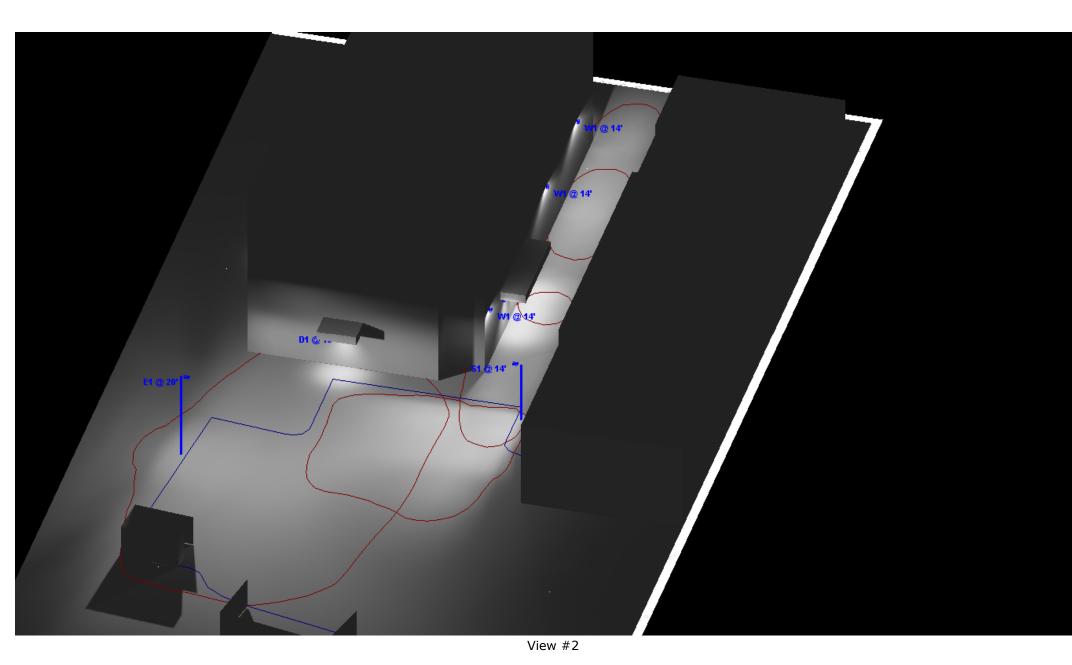
EXIST. DOWNSPOUT

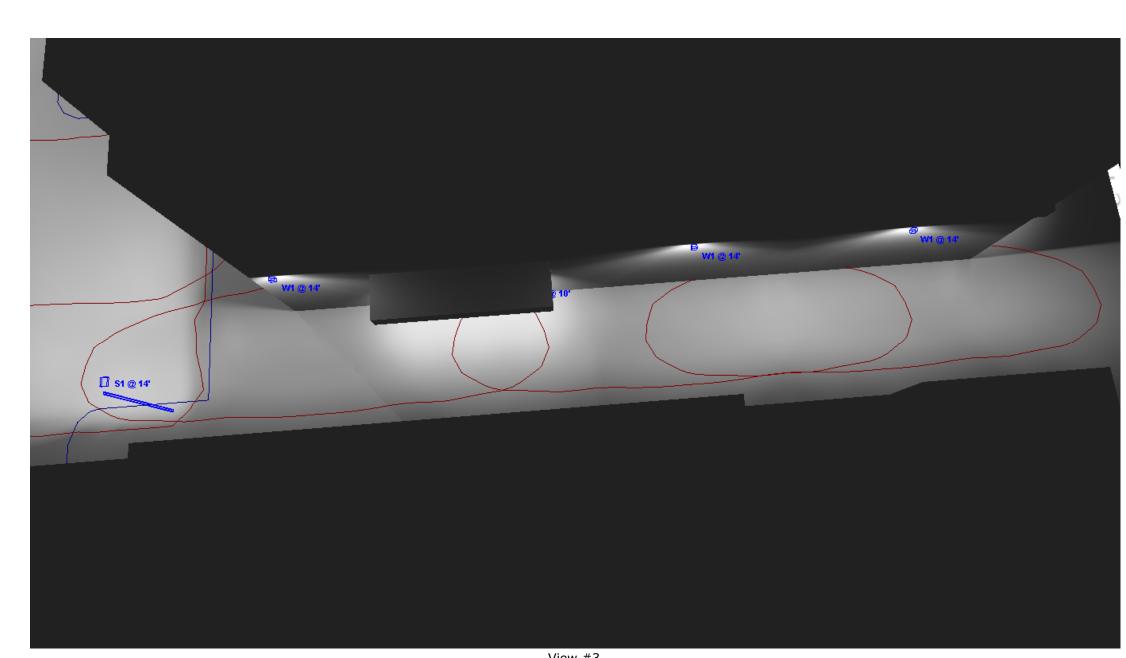


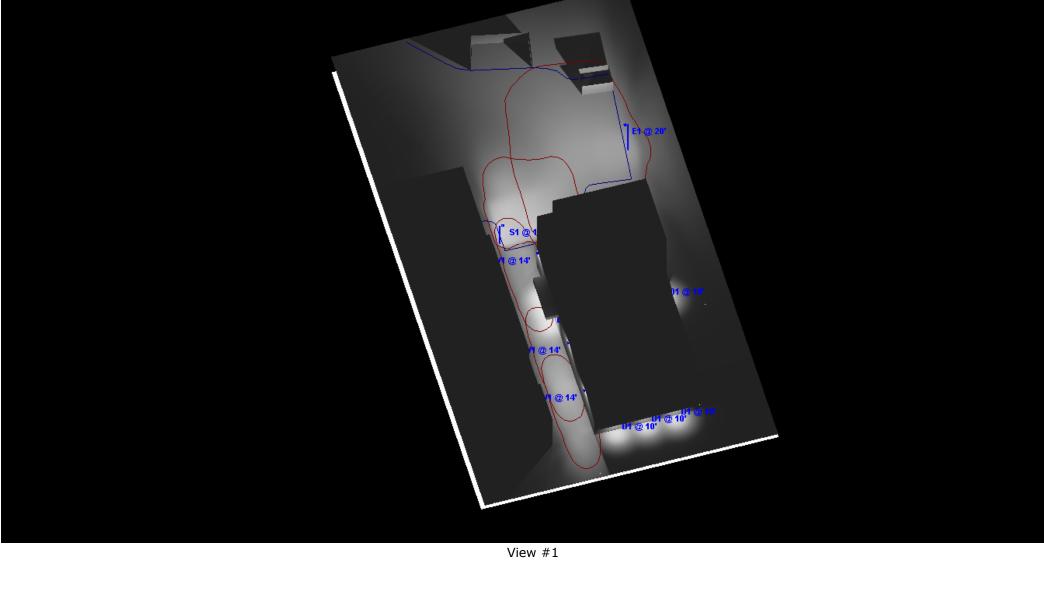
Rev# Date: Description:



C - 02







Lithonia DSX0 Series	

NOTES:

- Fixture Mounting Height: E1 @ 20'

S1 @ 14' S2 @ 3' W1 @ 12' D1 @ 10'

- Task Height: 0'-0" AFF

- Calculation Point Spacing: 4' x 4' oc

SCHE	DULE						
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Light Loss Factor	Wattage
	D1	8	Gotham	EVO2 40/07 AR LSS ND GZ10	Recessed 2" diameter LED downlight	0.9	9.6842
	E1	1	Lithonia	DSX0 LED P4 30K 80CRI T4M HS (assumed)	Existing Single head area light mounted at 20'	0.9	93.04
	S1	1	Lithonia	DSX0 LED P2 40K 80CRI RCCO	New Pole Mounted full cutoff area light with sharp right angle cutoff mounted at 14'	0.9	45.14
	W1	3	Lithonia	WDGE2 LED P3 40K 80CRI T1S	New Wall Mounted full cutoff wall pack with Type I optics	0.5	32.1375

Plan View Scale - 1/8" = 1ft

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 $\begin{picture}(100,0) \put(0.00,0) \put(0.00$

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+0.3 +0.8 +1.6 +1.9 +1.8 +0.4 +0.0

+0.3 +0.8 +1.6 +1.9 +1₆

+0.3 +0.8 +1.6 +1.8 +1.7

†0.3 †0.8 [†]1.7 [†]2.9 [†]3.1

0.3 0.9 73.3 9.3 117

+0.2 + 0.2 + 3.2 | 9.2 + 0.6 **10'**

0.9 2.8 6.9 8.2

+0.2 + 0.7 +2.1 +3.2 +3.1

+0.2 +0.8 +1.8 2.1 +1.8

+0.2 +0.9 +2.1 +2.4 +2.0

+0.2 +1.0 +2.3 +2.7 - +2.2

⁺0.2 \| \frac{\psi}{1.0} \| \frac{\psi}{2.6} \| \frac{\psi}{3.1} \| \frac{\psi}{2.4} \| \rac{\psi}{3.1} \| \frac{\psi}{3.1} \| \frac{\psi}{3.1}

1.0 +2.8 +3.5 +2

+1.0 +2.5 +2.9 +2.3

+0.2 +1\0 +2.2 +2.6 +2.7

+0.2 +0.8 +1.7 +2.0 +1

†0.2 †0.7 †1.6 †2.1 †1.8

0.9 +3.2 9.1

REPLACED +0.3 +0.7 +2.6 +7.2 +9.0

LANDSCAPE W1 @ 14'

 $^{+}0.2$ $^{-}0.3$ $| ^{-}1.2$ $| ^{+}2.0$ $| ^{+}2.4$ $| ^{+}2.3$ $| ^{+}2.1$ $| ^{+}2.0$ $| ^{+}2.1$ $| ^{+}2.1$ $| ^{+}2.1$ $| ^{+}2.0$ $| ^{+}2.1$ $| ^{+}2.0$ $| ^{+}2.1$ $| ^{+}2.1$ $| ^{+}2.2$ $| ^{+}1.9$ $| ^{+}1.1$ $| ^{+}0/4$ $| ^{+}0.3$ $| ^{+}0.3$ $| ^{+}0.2$ $| ^{+}0.2$

 $^{+}0.2$ $^{+}0.5$ $^{+}1.9$ $^{+}2.8$ $^{+}3.1$ $^{+}3.0$ $^{+}2.8$ $^{+}2.7$ $^{+}2.5$ $^{+}2.4$ $^{+}2.2$ $^{+}2.0$ $^{+}1.9$ $^{+}1.9$ $^{+}1.9$ $^{+}1.9$ $^{+}1.9$ $^{+}1.9$ $^{+}1.5$ $^{+}0.7$ $^{-}0.5$ $^{+}0.4$ $^{+}0.3$ $^{+}0.2$

 $- \overset{+}{0.2} \hspace{0.2cm} | \overset{+}{1/2} \hspace{0.2cm} | \overset{+}{5.9} \hspace{0.2cm} | \overset{+}{5.2} \hspace{0.2cm} | \overset{+}{4.7} \hspace{0.2cm} | \overset{+}{5.0} \hspace{0.2cm} | \overset{+}{4.7} \hspace{0.2cm} | \overset{+}{4.0} \hspace{0.2cm} | \overset{+}{3.2} \hspace{0.2cm} | \overset{+}{2.6} \hspace{0.2cm} | \overset{+}{2.0} \hspace{0.2cm} | \overset{+}{1.6} \hspace{0.2cm} | \overset{+}{1.4} \hspace{0.2cm} | \overset{+}{1.1} \hspace{0.2cm} | \overset{+}{1.1} \hspace{0.2cm} | \overset{+}{1.1} \hspace{0.2cm} | \overset{+}{1.0} \hspace{0.2cm} | \overset{+}{0.8} \hspace{0.2cm} | \overset{+}{0.5} \hspace{0.2cm} | \overset{+}{0.5} \hspace{0.2cm} | \overset{+}{0.2} \hspace{0.2cm} | \overset{+}{0.2} \hspace{0.2cm} | \overset{+}{0.2} \hspace{0.2cm} | \overset{+}{0.1} \hspace{0.2cm} | \overset{+}{0.1} \hspace{0.2cm} | \overset{+}{0.2cm} \hspace{0.2cm}$

ROOM 1

OFFICE 2 1240 SF

+0.3 +0.7 +1.6 +2.1 +1.8 +0.4 +0.5 +0.6 +0.7 +1.7 +0.2 +0.6 +0.9 +0.6 +0.9 +0.6 +0.9 +0.4 +0.2 +0.1 +0.1 +0.1 +0.1 +0.0

+0.2 +0.1 +0.0 +0.0 +0.0 +0.0 +0.0

⁺0.1 ⁺0.0 ⁺0.0 ⁺0.0 ⁺0.0 ⁺0.0

+0.1 +0.1 +0.0 +0.0 +0.0 +0.0 +0.0

+0.1 +0.0 - +0.0 +0.0 +0.0 +0.0 +0.0

+0.1 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0

+0.0 +0.0 +0.0 +0.0 +0.0 +0.0

+0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0

+0.6 +0.1 +0.0 +0.0 +0.0 +0.0 +0.0

+0.1 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0

+0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 CAPE

+1.3 +1.2 +0.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0

EXPANDED - 0.2 0.9 + 31 0 14.9 + 3.1 \+2.7 \+2.3 + 2.0 + 1.6 + 1.6 + 2.6 + 2.9 + 1.6 + 1.0 + 0.8 + 0.8 + 0.6 + 0.4 + 0.2 + 0.1 + 0.1 + 0.1 + 0.1

3,441 TOTAL SE

ROOM

REVISED 6" x 18"

LIGHT FIXTURE

BITUMINOUS

ACCESSIBLE

PARKING SPACE

EXISTING CONCRETE ---

(FROM CVS) TO BE

NEW 5'W CONCRETE ---

WALKWAYS (TYP.)

PLANTING

AREAS (TYP.)

CVS

BUILDING

(EXISTING)

EXISTING FRONT GRANITE CURB —

SIDEWALKS TO REMAIN (TYP.)

TO BE REUSED & RESET (TYP.)

WALKWAY

PARKING AREA TO ACCOMMODATE

GRANITE CURB (TYP.)

NEW POLE MOUNTED —

7/31/2024

ROJAS DESIGN, INC. 46 Waltham Street - Suite 2A Boston MA 02118-4101



Dear Mr. Rojas:

Thank you for taking the time to meet with me at 821 Mass Ave Arlington. I've reviewed the Austrian Pine (Pinus *nigra*) loacted off the front right corner of the current structure. This tree stands at approximately 40 feet tall and has a DBH of 24.5 inches.

- The trunk of this tree shows signs of boring insects as demonstrated by bore holes throughout the trunk. These insect feed on the live tissue under the bark restricting the flow of nutrients.
- The canopy of this tree is also thinning, this could be a sign of fungal infection, further investigation would be needed to confirm. This is expressed in second and third tier needles browning and falling. This species of Pine generally holds their needles for three years before dropping. The branches to sample were unattainable.
- This tree has been unbranched in the past as evident from old pruning scars and at some point in its history the top was removed either by pruning or breakage.
- These biotic stresses combined with abiotic stresses such as excess heat and drought from an urban environment could lead to the further decline of this tree. This was a visual inspection of the tree and tools used were a DBH tape and sounding hammer.

Please let me know if you have any questions or concerns about this assessment.

Sincerely,

Daniel Hager

District Manager Concord MCA# 2639 ISA# NE-7088A MA Pesticide# 43007

Hartney Greymont

2352 Main St Concord, MA 01742 Telephone 781-484-1764 x 6805 Mobile 978.440.0876 Fax 978-461-1767 dhager@hartney.com From: Michael Rademacher < MRademacher@town.arlington.ma.us>

Sent: Friday, July 12, 2024 8:50 AM

To: Claire Ricker < cricker@town.arlington.ma.us>

Subject: Fw: 821 Mass Ave Pine Tree

Claire-

Some info below on the Pine tree in questions. It looks like the tree is showing signs of stress and decline likely do to a fungal issue. Testing could confirm and influence a decision on if the tree can be treated.

Thanks

Michael Rademacher, P.E.

Director of Public Works 781-316-3101

Arlington values equity, diversity, and inclusion. We are committed to building a community where everyone is heard, respected, and protected.

From: Tim Lecuivre < tlecuivre@town.arlington.ma.us >

Sent: Friday, July 12, 2024 8:46 AM

To: Michael Rademacher < MRademacher@town.arlington.ma.us>

Subject: RE: 821 Mass Ave Pine Tree

Hello Mike,

Good morning.

I made a site visit to 821 Mass Ave to evaluate the pine tree in question. The pine is not a Scotch Pine it's an Austrian Pine. The tree was mislabeled on the Tree Plan. The pine is showing signs of stress and has a fungus issue. Black banding and fruiting structures are on the needles. It's best to send a live tissue sample to an extension service for it to be tested to determine what pathogen it is, several can infect pine trees. There are different treatment options, however I'm not sure it is feasible due to the close location to Mass Ave.

Thank you, Tim

Timothy A. Lecuivre MCA, MQTW Arlington Tree Warden Department of Public Works 51 Grove Street Arlington, MA 02476

Customer

_

Designer
Samuel Pierog

Organization
Great Sky Solar

Address

821 Massachusetts Ave, Arlington, MA

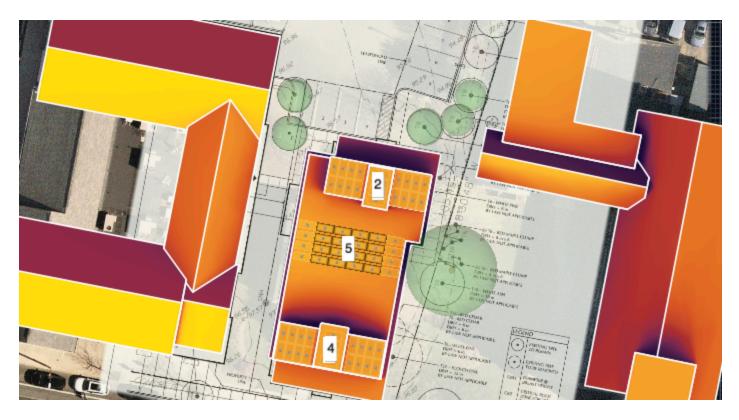
Coordinates

Date 9/4/2024

02476, USA

42.4170232, -71.1600909 9/4/

Annual irradiance



0 kWH/m2/year

350

700

1,050

1,400

1,750

2,100

2,450+

Summary

Array ID	Panel count	Azimuth	Pitch	Annual TOF	Annual solar access	Annual TSRF
1	4	0°	0°	83%	100%	83%
2	16	0°	0°	83%	99%	82%
3	16	0°	0°	83%	100%	83%
4	4	0°	0°	83%	100%	83%
5	24	190°	5°	87%	97%	85%
			Weighted avera	age by panel count:	98.6%	83.5%

Monthly solar access % across arrays

Array ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	99	100	100	100	100	100	100	100	100	100	98	99
2	97	99	99	99	100	100	99	99	99	99	97	97



Customer

Designer
Samuel Pierog

Organization
Great Sky Solar

Address

821 Massachusetts Ave, Arlington, MA 02476, USA

Coordinates

42.4170232, -71.1600909

Date

9/4/2024

Array ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
3	99	99	99	99	100	100	100	100	98	99	99	99
4	100	100	99	100	100	100	100	100	99	100	100	100
5	96	96	97	98	98	98	98	98	97	96	96	95



Customer

Designer Samuel Pierog

Organization Great Sky Solar

Date

Address

821 Massachusetts Ave, Arlington, MA

Coordinates

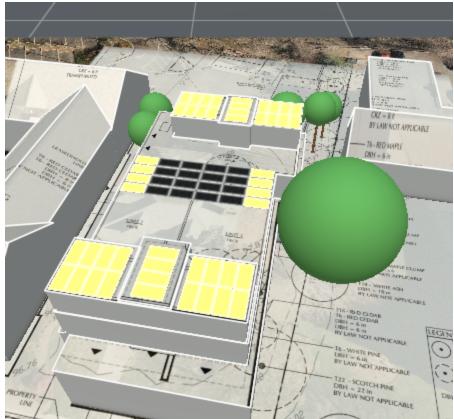
42.4170232, -71.1600909 9/4/2024

02476, USA

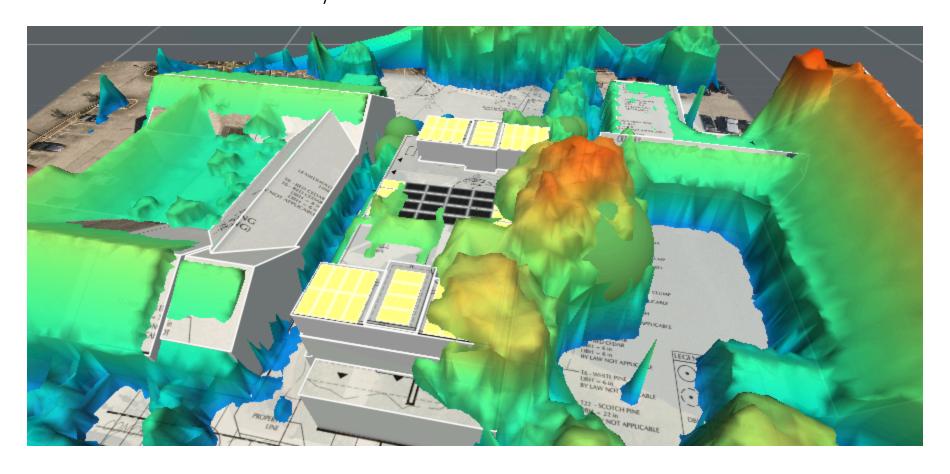
Zoomed out satellite view







3D model with LIDAR overlay





Customer Designer Organization

— Samuel Pierog Great Sky Solar

Address Coordinates Date

42.4170232, -71.1600909

9/4/2024

02476, USA

821 Massachusetts Ave, Arlington, MA

Street view with corresponding 3D model





I, **Samuel Pierog**, certify that I have generated this shading report to the best of my abilities, and I believe its contents to be accurate.





LEED v4 for BD+C: New Construction and Major Renovation

Project Checklist

Project Name: 821 Massachusetts Avenue - Arlington, MA

Date: September 5, 2024

3 1 2 Innovation

Υ	?	N				
1			Credit	Integrative Process		1

11	3	18	Locat	tion and Transportation	16
		16	Credit	LEED for Neighborhood Development Location	16
1			Credit	Sensitive Land Protection	1
	2		Credit	High Priority Site	2
3	1	1	Credit	Surrounding Density and Diverse Uses	5
5			Credit	Access to Quality Transit	5
1			Credit	Bicycle Facilities	1
		1	Credit	Reduced Parking Footprint	1
1			Credit	Green Vehicles	1

4	1	4	Susta	ainable Sites	10
Υ			Prereq	Construction Activity Pollution Prevention	Required
	1		Credit	Site Assessment	1
		2	Credit	Site Development - Protect or Restore Habitat	2
		1	Credit	Open Space	1
2		1	Credit	Rainwater Management	3
1			Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction	1

9	0	2	Water	r Efficiency	11
Υ			Prereq	Outdoor Water Use Reduction	Required
Υ	Prereq Indoor Water Us		Prereq	Indoor Water Use Reduction	Required
Υ			Prereq	Building-Level Water Metering	Required
2			Credit	Outdoor Water Use Reduction	2
6			Credit	Indoor Water Use Reduction	6
		2	Credit	Cooling Tower Water Use	2
1			Credit	Water Metering	1

16	3	14	Energ	Energy and Atmosphere							
Υ			Prereq	Fundamental Commissioning and Verification	Required						
Υ			Prereq	Minimum Energy Performance	Required						
Υ			Prereq	Building-Level Energy Metering	Required						
Υ			Prereq	Fundamental Refrigerant Management	Required						
		6	Credit	Enhanced Commissioning	6						
11	3	4	Credit	Optimize Energy Performance	18						
		1	Credit	Advanced Energy Metering	1						
		2	Credit	Demand Response	2						
3			Credit	Renewable Energy Production	3						
1			Credit	Enhanced Refrigerant Management	1						
1		1	Credit	Green Power and Carbon Offsets 2							

4	0	9	Mater	ials and Resources	13		
Υ	Prereq Storage and Collection of Recyclables						
Υ	Prereq Construction and Demolition Waste Management Planning						
		5	Credit	Building Life-Cycle Impact Reduction	5		
2			Credit	BPD and O - Environmental Product Declarations	2		
		2	Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2		
		2	Credit	Building Product Disclosure and Optimization - Material Ingredients	2		
2			Credit	Construction and Demolition Waste Management	2		

6	2	8	Indoor	Environmental Quality	16
Υ		Minimum Indoor Air Quality Performance	Required		
Υ			Prereq	Environmental Tobacco Smoke Control	Required
		2	Credit	Enhanced Indoor Air Quality Strategies	2
1		2	Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
	1	1	Credit	Indoor Air Quality Assessment	2
1			Credit	Thermal Comfort	1
1	1		Credit	Interior Lighting	2
1		2	Credit	Daylight	3
1			Credit	Quality Views	1
		1	Credit	Acoustic Performance	1

2	1	2	Credit	Innovation	5
1			Credit	LEED Accredited Professional	1
3	0	1	Regio	onal Priority	4
1			Credit	Regional Priority: Optimize Energy Performance	1
1			Credit	Regional Priority: Water Use Reduction	1
1			Credit	Regional Priority: Renewable Energy Production	1

		1	Credit	Regional Priority: Rainwater Management	1
57	10	58	TOTA	LS Possible Points:	110

Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110

Engineering Drainage Calculations for 821 Massachusetts Avenue Arlington, Massachusetts

Prepared by

Gala Simon Associates, Inc. 394 Lowell Street, Suite 18 Lexington, MA 02420 781-676-2962

September 6, 2024





Project: 821 Massachusetts Avenue, Arlington, MA

Date: September 6, 2024

Project Narrative:

The project consists of the demolition of an existing building and construction of a new one in its place.

Soils on the site are considered Hydrological Soil Type A per USDA soil maps. On-site soil testing performed by Gala Simon Associates, Inc., on September 5, 2024.

The 24-hour rainfall amounts used in the hydrological calculations were obtained from the NOAA Atlas 14, Volume 10, Version 3.

Summary of Results:

The following table summarizes the peak flows and volumes from the property under Existing and Proposed Conditions.

Summary of Stormwater Runoff and Volume

Storm Event	Existing Conditions Peak		Proposed Cor	iditions Peak	Δ	
	Runoff (cfs)	Volume (af)	Runoff (cfs)	Volume (af)	Runoff (cfs)	Volume (af)
2-Year (4.04 in)	0.22	0.019	0.21	0.016	-0.01	-0.003
10-Year (6.43 in)	0.68	0.050	0.52	0.037	-0.16	-0.013
50-Year (9.69 in)	1.43	0.104	0.97	0.071	-0.46	-0.033
100-Year (11.50 in)	1.88	0.136	1.23	0.090	-0.65	-0.046

Conclusions:

As analyzed, the peak rates of runoff and volumes will be maintained for the 2, 10, 50 and 100 year storm events.

NOAA Atlas 14, Volume 10, Version 3
Point Precipitation Frequency Estimates
For NOAA 14 Plus Plus
(Upper bound of 90% confidence interval)



NOAA Atlas 14, Volume 10, Version 3 Location name: Arlington, Massachusetts, USA* Latitude: 42.417°, Longitude: -71.1601° Elevation: 73 ft**

* source: ESRI Maps ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite NOAA, National Weather Service, Silver Spring, Maryland

PF tabular | PF graphical | Maps & aerials

PF tabular

	5-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹ Average recurrence interval (years)									
Duration	1	2	5	10	25	50	100	200	500	1000
5-min	0.304 (0.236-0.386)	0.373	0.485 (0.376-0.619)	0.578	0.705	0.800	0.901	1.02	1.20	1.36
10-min	0.431 (0.335-0.547)	0.528 (0.410-0.671)	0.686 (0.531-0.876)	0.817 (0.629-1.05)	0.998 (0.746-1.35)	1.13 (0.830-1.57)	1.28 (0.913-1.85)	1.45 (0.974-2.13)	1.70 (1.10-2.60)	1.92 (1.22-2.99)
15-min	0.507 (0.394-0.644)	0.621 (0.482-0.790)	0.808 (0.625-1.03)	0.962 (0.740-1.24)	1.18 (0.877-1.59)	1.33 (0.976-1.84)	1.50 (1.07-2.17)	1.70 (1.14-2.50)	2.00 (1.30-3.06)	2.26 (1.43-3.52)
30-min	0.694 (0.539-0.881)	0.851 (0.661-1.08)	1.11 (0.858-1.41)	1.32 (1.02-1.70)	1.62 (1.21-2.19)	1.84 (1.35-2.55)	2.07 (1.48-3.00)	2.35 (1.58-3.46)	2.78 (1.80-4.25)	3.15 (1.99-4.91)
60-min	0.881 (0.685-1.12)	1.08 (0.840-1.38)	1.41 (1.09-1.80)	1.68 (1.30-2.16)	2.06 (1.54-2.79)	2.34 (1.72-3.25)	2.64 (1.89-3.83)	3.00 (2.02-4.42)	3.56 (2.31-5.44)	4.04 (2.56-6.31)
2-hr	1.15 (0.897-1.45)	1.41 (1.10-1.78)	1.84 (1.43-2.33)	2.20 (1.70-2.80)	2.68 (2.02-3.62)	3.04 (2.26-4.21)	3.44 (2.49-4.98)	3.94 (2.66-5.75)	4.71 (3.06-7.14)	5.39 (3.42-8.33)
3-hr	1.34 (1.05-1.68)	1.64 (1.29-2.06)	2.14 (1.67-2.70)	2.55 (1.99-3.24)	3.12 (2.36-4.19)	3.54 (2.63-4.88)	4.00 (2.91-5.78)	4.58 (3.10-6.66)	5.50 (3.58-8.28)	6.30 (4.01-9.68)
6-hr	1.73 (1.37-2.16)	2.12 (1.68-2.65)	2.76 (2.17-3.46)	3.29 (2.57-4.15)	4.02 (3.06-5.34)	4.55 (3.40-6.21)	5.14 (3.75-7.34)	5.88 (3.99-8.46)	7.04 (4.59-10.5)	8.05 (5.13-12.2)
12-hr	2.20 (1.76-2.73)	2.70 (2.15-3.35)	3.51 (2.78-4.36)	4.18 (3.29-5.23)	5.10 (3.90-6.72)	5.78 (4.34-7.81)	6.52 (4.78-9.22)	7.44 (5.07-10.6)	8.86 (5.80-13.1)	10.1 (6.46-15.2)
24-hr	2.64 (2.12-3.25)	3.28 (2.63- <mark>4.04</mark>)	4.31 (3.44-5.33)	5.17 (4.10 <mark>-6.43</mark>)	6.35 (4.89-8.32)	7.22 (5.46-9.69)	8.17 (6.02- <mark>11.5)</mark>	9.36 (6.41-13.2)	11.2 (7.38-16.4)	12.8 (8.24-19.1)
2-day	3.01 (2.43-3.68)	3.80 (3.07-4.65)	5.10 (4.10-6.26)	6.17 (4.93-7.62)	7.65 (5.94-9.98)	8.73 (6.66-11.7)	9.93 (7.40-13.9)	11.5 (7.89-16.1)	14.0 (9.22-20.3)	16.2 (10.4-23.9)
3-day	3.30 (2.68-4.01)	4.15 (3.37-5.06)	5.55 (4.48-6.78)	6.71 (5.38-8.24)	8.30 (6.47-10.8)	9.46 (7.24-12.6)	10.8 (8.05-15.0)	12.5 (8.57-17.3)	15.2 (10.0-21.9)	17.6 (11.4-25.9)
4-day	3.57 (2.91-4.33)	4.45 (3.62-5.41)	5.90 (4.78-7.19)	7.09 (5.71-8.69)	8.74 (6.83-11.3)	9.94 (7.63-13.2)	11.3 (8.46-15.7)	13.0 (8.99-18.1)	15.9 (10.5-22.8)	18.4 (11.9-26.9)
7-day	4.33 (3.55-5.23)	5.25 (4.30-6.34)	6.75 (5.50-8.18)	8.00 (6.48-9.74)	9.71 (7.63-12.5)	11.0 (8.44-14.4)	12.4 (9.28-17.0)	14.2 (9.81-19.5)	17.1 (11.3-24.3)	19.6 (12.7-28.4)
10-day	5.03 (4.14-6.05)	5.98 (4.91-7.19)	7.52 (6.15-9.08)	8.80 (7.15-10.7)	10.6 (8.31-13.5)	11.9 (9.14-15.5)	13.3 (9.96-18.1)	15.1 (10.5-20.6)	17.9 (11.9-25.3)	20.4 (13.2-29.4)
20-day	7.03 (5.83-8.39)	8.06 (6.67-9.63)	9.74 (8.03-11.7)	11.1 (9.12-13.4)	13.1 (10.3-16.4)	14.5 (11.2-18.6)	16.0 (11.9-21.2)	17.8 (12.4-24.0)	20.3 (13.6-28.4)	22.4 (14.6-31.9)
30-day	8.69 (7.23-10.3)	9.78 (8.13-11.6)	11.6 (9.58-13.8)	13.1 (10.7-15.7)	15.1 (11.9-18.8)	16.7 (12.8-21.1)	18.2 (13.5-23.8)	19.9 (14.0-26.8)	22.2 (14.9-30.9)	24.0 (15.7-34.1)
45-day	10.8 (9.01-12.8)	11.9 (9.97-14.1)	13.8 (11.5-16.5)	15.4 (12.7-18.4)	17.6 (13.9-21.7)	19.3 (14.9-24.2)	20.9 (15.5-27.0)	22.6 (15.9-30.1)	24.7 (16.6-34.0)	26.2 (17.1-36.9)
60-day	12.6 (10.5-14.8)	13.8 (11.5-16.3)	15.8 (13.1-18.7)	17.4 (14.4-20.7)	19.7 (15.6-24.1)	21.4 (16.6-26.7)	23.2 (17.1-29.6)	24.8 (17.5-32.9)	26.7 (18.0-36.7)	28.1 (18.4-39.4)

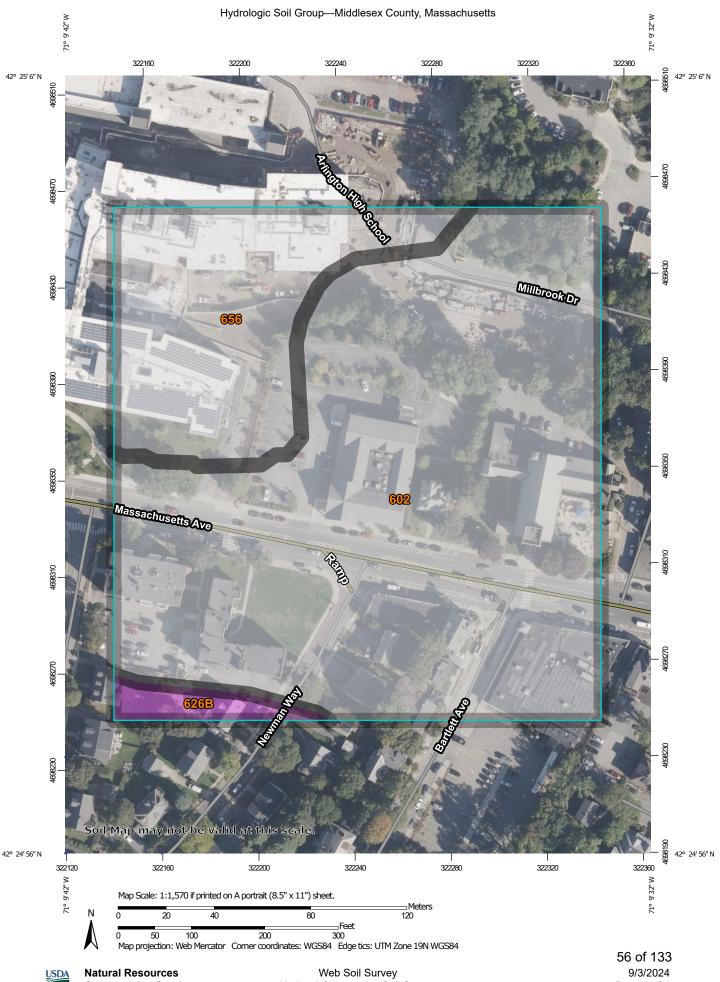
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical

USDA Soil Mapping



MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at Area of Interest (AOI) С 1:24.000. Area of Interest (AOI) C/D Soils Warning: Soil Map may not be valid at this scale. D Soil Rating Polygons Enlargement of maps beyond the scale of mapping can cause Not rated or not available Α misunderstanding of the detail of mapping and accuracy of soil **Water Features** line placement. The maps do not show the small areas of A/D contrasting soils that could have been shown at a more detailed Streams and Canals Transportation B/D Rails ---Please rely on the bar scale on each map sheet for map measurements. Interstate Highways C/D Source of Map: Natural Resources Conservation Service **US Routes** Web Soil Survey URL: D Major Roads Coordinate System: Web Mercator (EPSG:3857) Not rated or not available -Local Roads Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts Soil Rating Lines Background distance and area. A projection that preserves area, such as the Aerial Photography Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. Soil Survey Area: Middlesex County, Massachusetts Survey Area Data: Version 23, Sep 12, 2023 Soil map units are labeled (as space allows) for map scales 1:50.000 or larger. Not rated or not available Date(s) aerial images were photographed: Mar 1, 2023—Sep 1. 2023 **Soil Rating Points** The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background A/D imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident. B/D

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
602	Urban land		8.1	75.4%
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	А	0.2	2.3%
656	Udorthents-Urban land complex		2.4	22.2%
Totals for Area of Intere	est	10.7	100.0%	

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

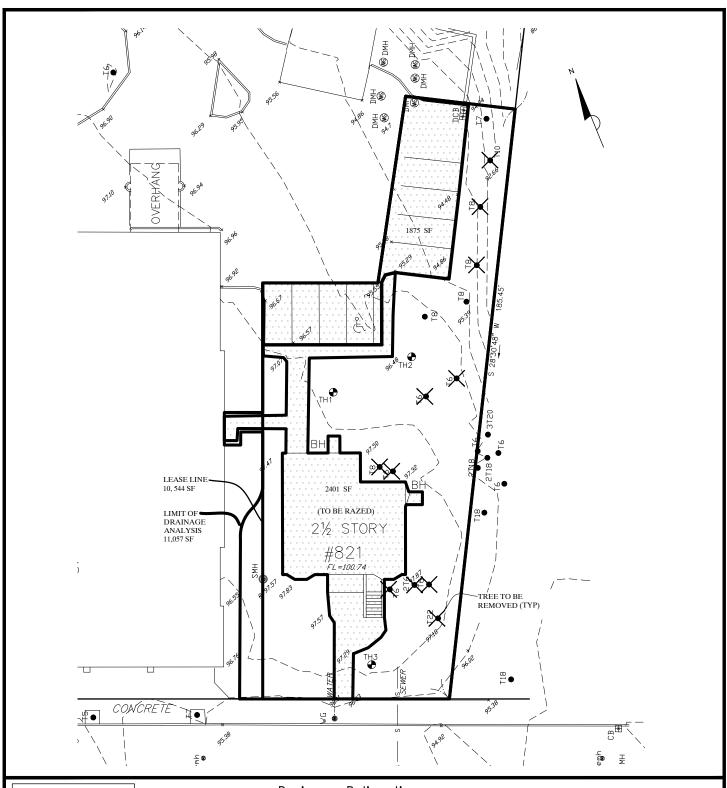
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Drainage Delineation Plans





Drainage Delineation Existing Conditions

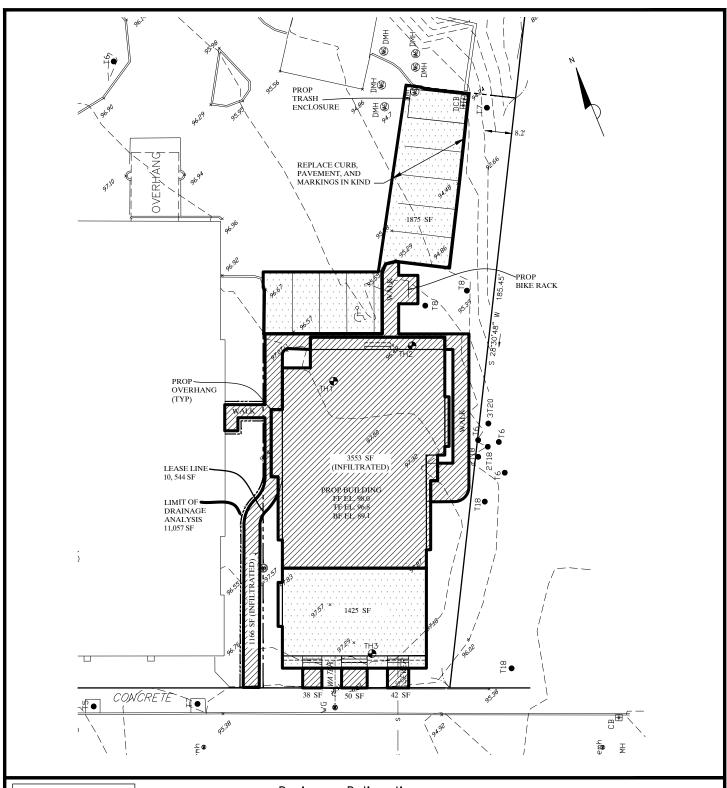
821 Massachusetts Avenue — Arlington, MA

Avenue - Arlington, MA D-1 Scale: 1"=30'

394 Lowell Street Suite 18 Lexington, MA 02420

September 6, 2024

781-676-2962





Drainage Delineation Proposed Conditions

821 Massachusetts Avenue — Arlington, MA

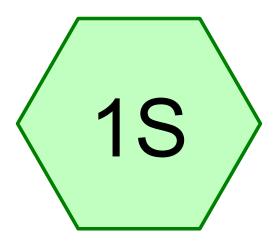
394 Lowell Street Suite 18

Scale: 1"=30'

781-676-2962

September 6, 2024

Existing Conditions 2, 10, 50 and 100 Year Storm Events



Existing Conditions









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Area Listing (all nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
0.156	39	>75% Grass cover, Good, HSG A (1S)
0.098	98	Paved parking, HSG A (1S)

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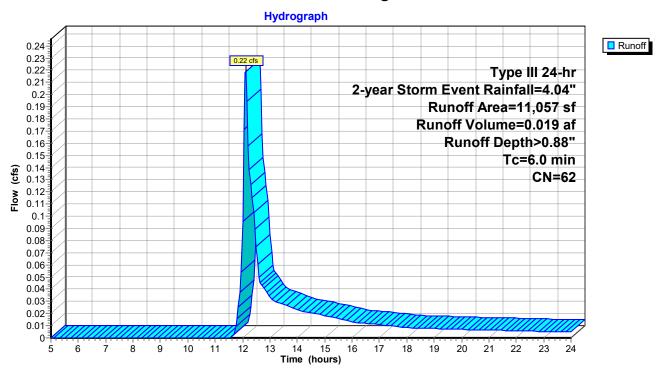
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Summary for Subcatchment 1S: Existing Conditions

Runoff = 0.22 cfs @ 12.11 hrs, Volume= 0.019 af, Depth> 0.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-year Storm Event Rainfall=4.04"

Area	(sf) CN	N D	Description						
6	,781 39	9 >7	75% Grass	s cover, Go	ood, HSG A				
4	,276 98	8 Pa	aved parki	ng, HSG A	4				
11	,057 62	2 W	eighted A	verage					
6	,781	61	1.33% Per	vious Area	a e e e e e e e e e e e e e e e e e e e				
4	,276	38	3.67% Imp	ervious Are	rea				
	0	lope	Velocity	Capacity	Description				
(min)	(feet) ((ft/ft)	(ft/sec)	(cfs)					
6.0					Direct Entry,				



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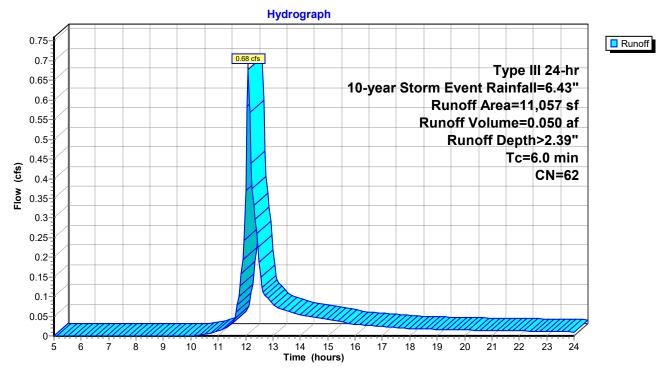
Page 4

Summary for Subcatchment 1S: Existing Conditions

Runoff = 0.68 cfs @ 12.10 hrs, Volume= 0.050 af, Depth> 2.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-year Storm Event Rainfall=6.43"

A	rea (sf)	CN	Description						
	6,781	39	>75% Gras	s cover, Go	ood, HSG A				
	4,276	98	Paved park	ing, HSG A	Α				
	11,057	62	Weighted A	Veighted Average					
	6,781		61.33% Per	vious Area	a				
	4,276		38.67% Imp	ervious Ar	rea				
Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	·				
6.0					Direct Entry,				



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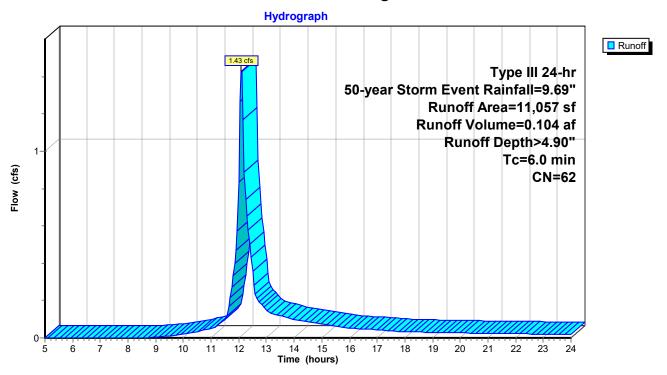
Page 5

Summary for Subcatchment 1S: Existing Conditions

Runoff = 1.43 cfs @ 12.09 hrs, Volume= 0.104 af, Depth> 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-year Storm Event Rainfall=9.69"

Are	ea (sf)	CN	Description					
	6,781	39	>75% Grass cover, Good, HSG A					
	4,276	98	Paved parking, HSG A					
1	11,057	62	Weighted A	verage				
	6,781	61.33% Pervious Area						
	4,276		38.67% Impervious Area					
т.	ما العرب ما	Clana	\/alaaitr	Canacity	Description			
	Length	Slope	,	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
6.0					Direct Entry,			



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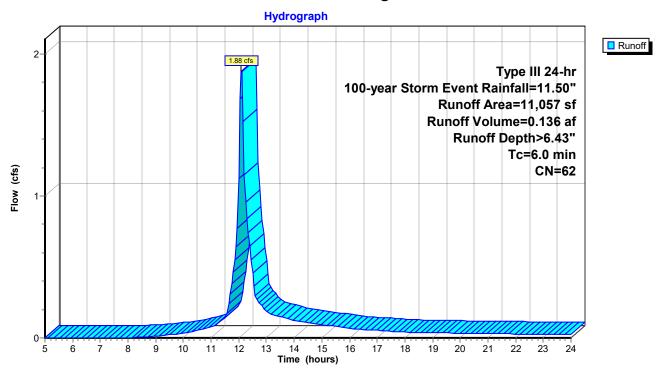
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Summary for Subcatchment 1S: Existing Conditions

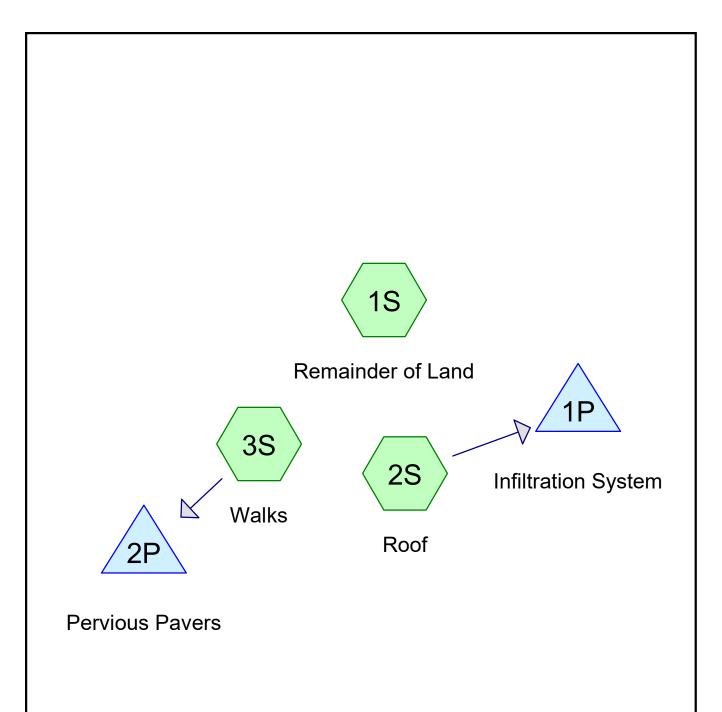
Runoff = 1.88 cfs @ 12.09 hrs, Volume= 0.136 af, Depth> 6.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 100-year Storm Event Rainfall=11.50"

Are	ea (sf)	CN	Description					
	6,781	39	>75% Grass cover, Good, HSG A					
	4,276	98	Paved parking, HSG A					
1	11,057	62	Weighted A	verage				
	6,781	61.33% Pervious Area						
	4,276		38.67% Impervious Area					
т.	ما العرب ما	Clana	\/alaaitr	Canacity	Description			
	Length	Slope	,	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
6.0					Direct Entry,			



Proposed Conditions 2, 10, 50 and 100 Year Storm Events











Routing Diagram for [2422] Proposed Conditions
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Area Listing (all nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
0.067	39	>75% Grass cover, Good, HSG A (1S)
0.106	98	Paved parking, HSG A (1S, 3S)
0.082	98	Roofs, HSG A (2S)

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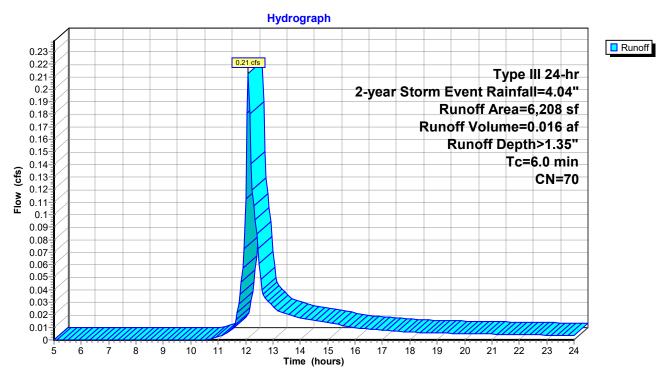
Summary for Subcatchment 1S: Remainder of Land

Runoff = 0.21 cfs @ 12.10 hrs, Volume= 0.016 af, Depth> 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-year Storm Event Rainfall=4.04"

A	rea (sf)	CN	Description				
	2,908	39	>75% Gras	s cover, Go	ood, HSG A		
	3,300	98	Paved park	ing, HSG A	Α		
	6,208	70	Weighted Average				
	2,908		46.84% Pervious Area				
	3,300		53.16% Impervious Area				
Тс	Length	Slope	Velocity	Capacity	Description		
(min)	(feet)	(ft/ft	(ft/sec)	(cfs)			
6.0					Direct Entry,		

Subcatchment 1S: Remainder of Land



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Summary for Subcatchment 2S: Roof

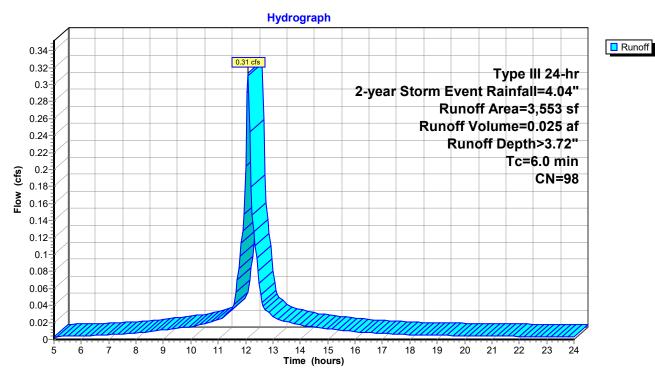
Runoff = 0.31 cfs @ 12.09 hrs, Volume= 0.025 af, Depth> 3.72"

Routed to Pond 1P: Infiltration System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-year Storm Event Rainfall=4.04"

A	rea (sf)	CN [Description			
	3,553	98 F	Roofs, HSG	Α		
	3,553	1	100.00% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	•	
6.0		•			Direct Entry,	

Subcatchment 2S: Roof



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Summary for Subcatchment 3S: Walks

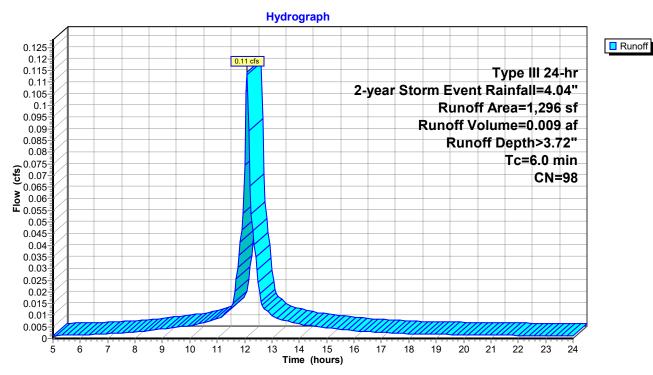
Runoff = 0.11 cfs @ 12.09 hrs, Volume= 0.009 af, Depth> 3.72"

Routed to Pond 2P: Pervious Pavers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-year Storm Event Rainfall=4.04"

A	rea (sf)	CN E	Description					
	1,296	98 F	Paved parking, HSG A					
	1,296	1	100.00% Impervious Area					
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
6.0					Direct Entry,			

Subcatchment 3S: Walks



Type III 24-hr 2-year Storm Event Rainfall=4.04"

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Summary for Pond 1P: Infiltration System

Inflow Area = 0.082 ac,100.00% Impervious, Inflow Depth > 3.72" for 2-year Storm Event event

Inflow = 0.31 cfs @ 12.09 hrs, Volume= 0.025 af

Outflow = 0.04 cfs @ 11.65 hrs, Volume= 0.025 af, Atten= 86%, Lag= 0.0 min

Discarded = 0.04 cfs @ 11.65 hrs, Volume= 0.025 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 89.00' @ 12.60 hrs Surf.Area= 802 sf Storage= 324 cf

Plug-Flow detention time= 44.6 min calculated for 0.025 af (100% of inflow)

Center-of-Mass det. time= 44.0 min (807.6 - 763.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	88.20'	578 cf	20.83'W x 38.50'L x 3.54'H Field A
			2,841 cf Overall - 1,088 cf Embedded = 1,753 cf x 33.0% Voids
#2A	88.70'	1,088 cf	Cultec R-330XLHD x 20 Inside #1
			Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf
			Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap
			Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
•		4.000 - 5	Tatal Assallable Ottomore

1,666 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	88.20'	2.410 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.04 cfs @ 11.65 hrs HW=88.24' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.04 cfs)

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Pond 1P: Infiltration System - Chamber Wizard Field A

Chamber Model = Cultec R-330XLHD (Cultec Recharger® 330XLHD)

Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows

52.0" Wide + 6.0" Spacing = 58.0" C-C Row Spacing

5 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 36.50' Row Length +12.0" End Stone x 2 = 38.50' Base Length

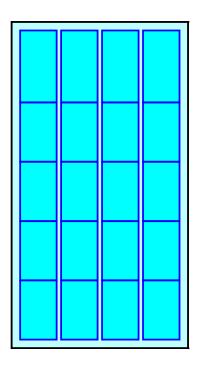
4 Rows x 52.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.83' Base Width 6.0" Stone Base + 30.5" Chamber Height + 6.0" Stone Cover = 3.54' Field Height

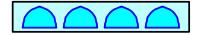
20 Chambers x 52.2 cf +1.50' Row Adjustment x 7.45 sf x 4 Rows = 1,087.8 cf Chamber Storage

2,840.7 cf Field - 1,087.8 cf Chambers = 1,752.9 cf Stone x 33.0% Voids = 578.4 cf Stone Storage

Chamber Storage + Stone Storage = 1,666.3 cf = 0.038 af Overall Storage Efficiency = 58.7% Overall System Size = 38.50' x 20.83' x 3.54'

20 Chambers 105.2 cy Field 64.9 cy Stone

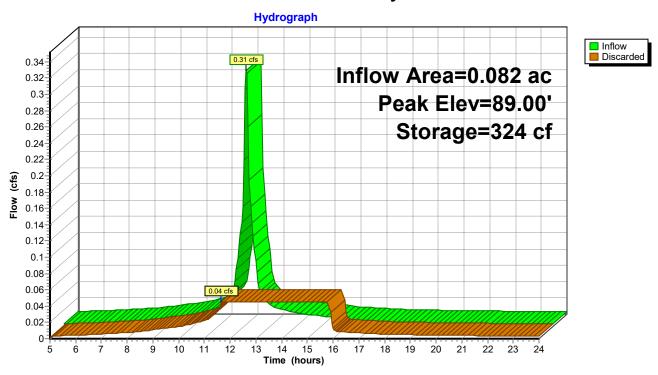




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Pond 1P: Infiltration System



Type III 24-hr 2-year Storm Event Rainfall=4.04"

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Summary for Pond 2P: Pervious Pavers

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth > 3.72" for 2-year Storm Event event

Inflow = 0.11 cfs @ 12.09 hrs, Volume= 0.009 af

Outflow = 0.07 cfs @ 12.05 hrs, Volume= 0.009 af, Atten= 37%, Lag= 0.0 min

Discarded = 0.07 cfs @ 12.05 hrs, Volume= 0.009 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 88.25' @ 12.19 hrs Surf.Area= 1,296 sf Storage= 21 cf

Plug-Flow detention time= 1.7 min calculated for 0.009 af (100% of inflow)

Center-of-Mass det. time= 1.4 min (765.1 - 763.6)

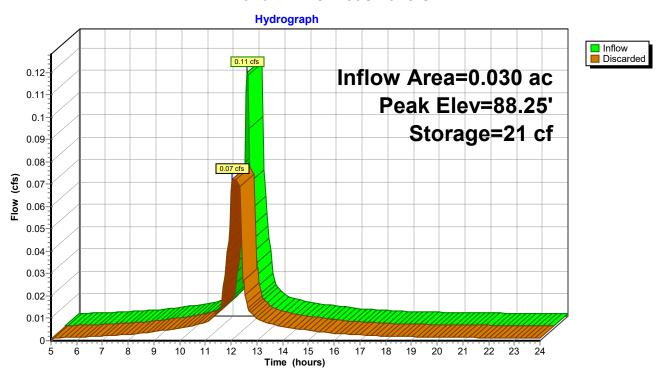
Volume	Invert	t Avail.Sto	rage Storaç	ge Description	
#1	88.20	' 42		m Stage Data (Pr cf Overall x 33.09	ismatic) Listed below % Voids
Elevation (fee		urf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
88.2	20	1,296	0	0	
89.2	20	1,296	1,296	1,296	
Device	Routing	Invert	Outlet Devi	ces	
#1	Discarded	88.20'	2.410 in/hr	Exfiltration over \$	Surface area

Discarded OutFlow Max=0.07 cfs @ 12.05 hrs HW=88.22' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.07 cfs)

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Pond 2P: Pervious Pavers



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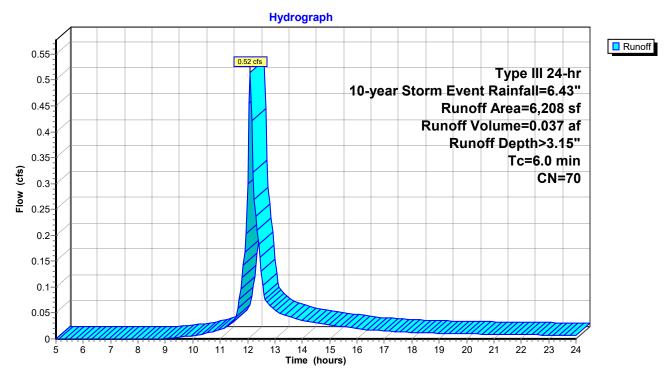
Summary for Subcatchment 1S: Remainder of Land

Runoff = 0.52 cfs @ 12.09 hrs, Volume= 0.037 af, Depth> 3.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-year Storm Event Rainfall=6.43"

A	rea (sf)	CN	Description				
	2,908	39	>75% Gras	s cover, Go	ood, HSG A		
	3,300	98	Paved park	ing, HSG A	4		
	6,208	70	Weighted Average				
	2,908		46.84% Pervious Area				
	3,300		53.16% Impervious Area				
То	Longth	Clana	\/alaaitu	Conneity	Description		
Tc	Length	Slope	,	Capacity	Description		
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)			
6.0					Direct Entry,		

Subcatchment 1S: Remainder of Land



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Summary for Subcatchment 2S: Roof

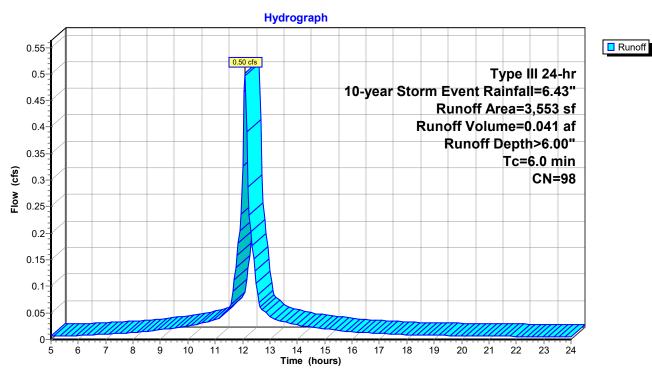
Runoff = 0.50 cfs @ 12.09 hrs, Volume= 0.041 af, Depth> 6.00"

Routed to Pond 1P: Infiltration System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-year Storm Event Rainfall=6.43"

A	rea (sf)	CN [Description			
	3,553	98 F	Roofs, HSG	Α		
	3,553	1	100.00% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	•	
6.0		•			Direct Entry,	

Subcatchment 2S: Roof



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Summary for Subcatchment 3S: Walks

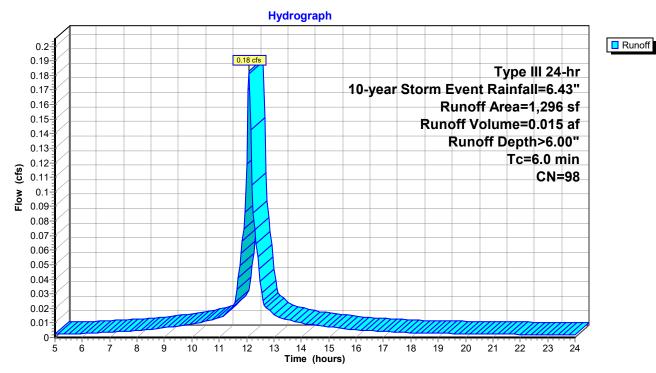
Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 6.00"

Routed to Pond 2P: Pervious Pavers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-year Storm Event Rainfall=6.43"

A	rea (sf)	CN E	escription					
	1,296	98 F	Paved parking, HSG A					
	1,296	1	100.00% Impervious Area					
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
6.0					Direct Entry,			

Subcatchment 3S: Walks



Type III 24-hr 10-year Storm Event Rainfall=6.43"

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Summary for Pond 1P: Infiltration System

Inflow Area = 0.082 ac,100.00% Impervious, Inflow Depth > 6.00" for 10-year Storm Event event

Inflow = 0.50 cfs @ 12.09 hrs, Volume= 0.041 af

Outflow = 0.04 cfs @ 11.30 hrs, Volume= 0.041 af, Atten= 91%, Lag= 0.0 min

Discarded = 0.04 cfs @ 11.30 hrs, Volume= 0.041 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 89.49' @ 12.96 hrs Surf.Area= 802 sf Storage= 637 cf

Plug-Flow detention time= 101.7 min calculated for 0.041 af (100% of inflow)

Center-of-Mass det. time= 101.0 min (861.7 - 760.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	88.20'	578 cf	20.83'W x 38.50'L x 3.54'H Field A
			2,841 cf Overall - 1,088 cf Embedded = 1,753 cf x 33.0% Voids
#2A	88.70'	1,088 cf	Cultec R-330XLHD x 20 Inside #1
			Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf
			Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap
			Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
		4.000 - 5	Takal Assallable Oksassas

1,666 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	88.20'	2.410 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.04 cfs @ 11.30 hrs HW=88.24' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.04 cfs)

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Pond 1P: Infiltration System - Chamber Wizard Field A

Chamber Model = Cultec R-330XLHD (Cultec Recharger® 330XLHD)

Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows

52.0" Wide + 6.0" Spacing = 58.0" C-C Row Spacing

5 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 36.50' Row Length +12.0" End Stone x 2 = 38.50' Base Length

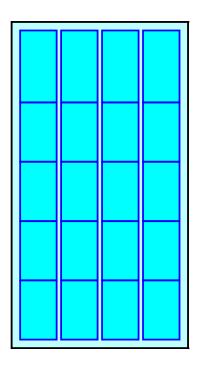
4 Rows x 52.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.83' Base Width 6.0" Stone Base + 30.5" Chamber Height + 6.0" Stone Cover = 3.54' Field Height

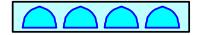
20 Chambers x 52.2 cf +1.50' Row Adjustment x 7.45 sf x 4 Rows = 1,087.8 cf Chamber Storage

2,840.7 cf Field - 1,087.8 cf Chambers = 1,752.9 cf Stone x 33.0% Voids = 578.4 cf Stone Storage

Chamber Storage + Stone Storage = 1,666.3 cf = 0.038 af Overall Storage Efficiency = 58.7% Overall System Size = 38.50' x 20.83' x 3.54'

20 Chambers 105.2 cy Field 64.9 cy Stone

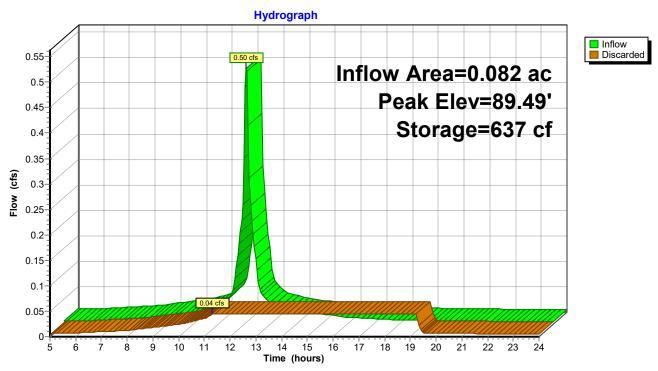




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Pond 1P: Infiltration System



Type III 24-hr 10-year Storm Event Rainfall=6.43"

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Summary for Pond 2P: Pervious Pavers

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth > 6.00" for 10-year Storm Event event

Inflow = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af

Outflow = 0.07 cfs @ 11.95 hrs, Volume= 0.015 af, Atten= 61%, Lag= 0.0 min

Discarded = 0.07 cfs @ 11.95 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 88.37' @ 12.31 hrs Surf.Area= 1,296 sf Storage= 74 cf

Plug-Flow detention time= 4.6 min calculated for 0.015 af (100% of inflow)

Center-of-Mass det. time= 4.4 min (765.1 - 760.7)

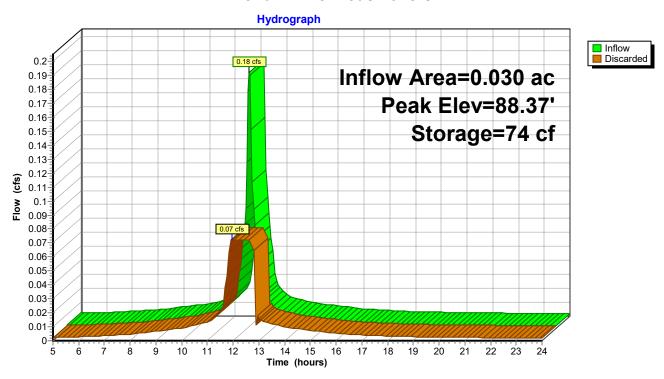
Volume	Invert	Avail.Sto	rage Stora	ge Description	
#1	88.20'	42		om Stage Data (Pr ocf Overall x 33.09	ismatic) Listed below % Voids
Elevation (fee		urf.Area (sq-ft)	Inc.Store (cubic-feet)	• • • • • • • • • • • • • • • • • • • •	
88.2	20	1,296	0	0	
89.2	20	1,296	1,296	1,296	
Device	Routing	Invert	Outlet Dev	ices	
#1	Discarded	88.20'	2.410 in/hr	Exfiltration over	Surface area

Discarded OutFlow Max=0.07 cfs @ 11.95 hrs HW=88.21' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.07 cfs)

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Pond 2P: Pervious Pavers



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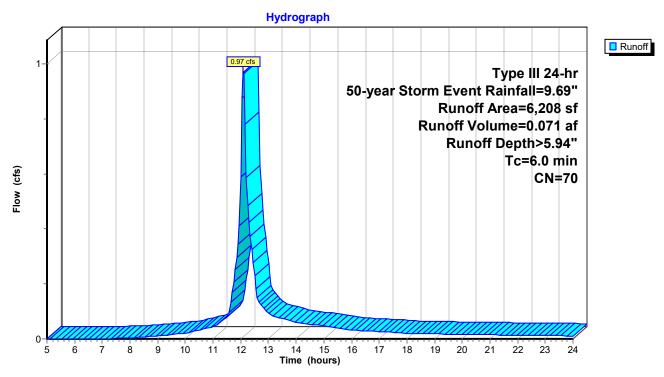
Summary for Subcatchment 1S: Remainder of Land

Runoff = 0.97 cfs @ 12.09 hrs, Volume= 0.071 af, Depth> 5.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-year Storm Event Rainfall=9.69"

A	rea (sf)	CN	Description					
	2,908	39	>75% Gras	s cover, Go	ood, HSG A			
	3,300	98	Paved park	ing, HSG A	Α			
	6,208	70	Weighted Average					
	2,908		46.84% Per	vious Area	a			
	3,300		53.16% Impervious Area					
Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
6.0	()	(1411)	()	()	Direct Entry,			

Subcatchment 1S: Remainder of Land



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Summary for Subcatchment 2S: Roof

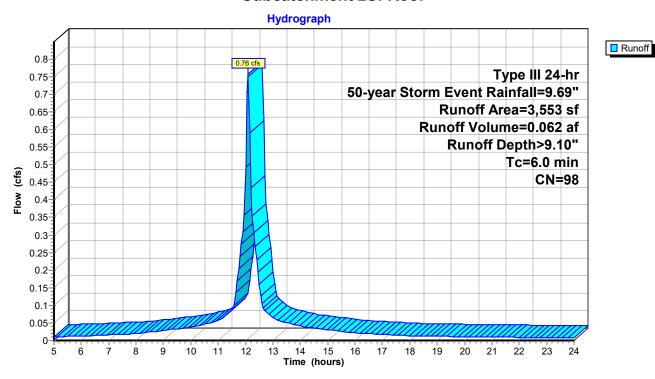
Runoff = 0.76 cfs @ 12.09 hrs, Volume= 0.062 af, Depth> 9.10"

Routed to Pond 1P: Infiltration System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-year Storm Event Rainfall=9.69"

A	rea (sf)	CN [Description				
	3,553	98 F	Roofs, HSG	Α			
	3,553	1	100.00% Impervious Area				
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
6.0					Direct Entry,		

Subcatchment 2S: Roof



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Summary for Subcatchment 3S: Walks

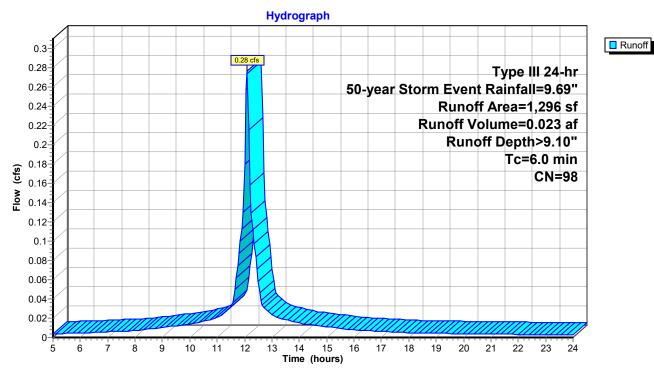
Runoff = 0.28 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 9.10"

Routed to Pond 2P: Pervious Pavers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-year Storm Event Rainfall=9.69"

A	rea (sf)	CN E	escription					
	1,296	98 F	98 Paved parking, HSG A					
	1,296	1	100.00% Impervious Area					
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
6.0					Direct Entry,			

Subcatchment 3S: Walks



Type III 24-hr 50-year Storm Event Rainfall=9.69"

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Summary for Pond 1P: Infiltration System

Inflow Area = 0.082 ac,100.00% Impervious, Inflow Depth > 9.10" for 50-year Storm Event event

Inflow = 0.76 cfs @ 12.09 hrs, Volume= 0.062 af

Outflow = 0.04 cfs @ 10.50 hrs, Volume= 0.060 af, Atten= 94%, Lag= 0.0 min

Discarded = 0.04 cfs @ 10.50 hrs, Volume= 0.060 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 90.35' @ 13.79 hrs Surf.Area= 802 sf Storage= 1,151 cf

Plug-Flow detention time= 210.3 min calculated for 0.060 af (96% of inflow)

Center-of-Mass det. time= 190.0 min (949.3 - 759.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	88.20'	578 cf	20.83'W x 38.50'L x 3.54'H Field A
			2,841 cf Overall - 1,088 cf Embedded = 1,753 cf x 33.0% Voids
#2A	88.70'	1,088 cf	Cultec R-330XLHD x 20 Inside #1
			Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf
			Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap
			Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
	•	4 000 5	T () A () 1 0 (

1,666 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	88.20'	2.410 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.04 cfs @ 10.50 hrs HW=88.24' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.04 cfs)

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Pond 1P: Infiltration System - Chamber Wizard Field A

Chamber Model = Cultec R-330XLHD (Cultec Recharger® 330XLHD)

Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows

52.0" Wide + 6.0" Spacing = 58.0" C-C Row Spacing

5 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 36.50' Row Length +12.0" End Stone x 2 = 38.50' Base Length

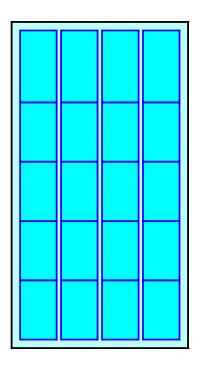
4 Rows x 52.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.83' Base Width 6.0" Stone Base + 30.5" Chamber Height + 6.0" Stone Cover = 3.54' Field Height

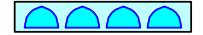
20 Chambers x 52.2 cf +1.50' Row Adjustment x 7.45 sf x 4 Rows = 1,087.8 cf Chamber Storage

2,840.7 cf Field - 1,087.8 cf Chambers = 1,752.9 cf Stone x 33.0% Voids = 578.4 cf Stone Storage

Chamber Storage + Stone Storage = 1,666.3 cf = 0.038 af Overall Storage Efficiency = 58.7% Overall System Size = 38.50' x 20.83' x 3.54'

20 Chambers 105.2 cy Field 64.9 cy Stone

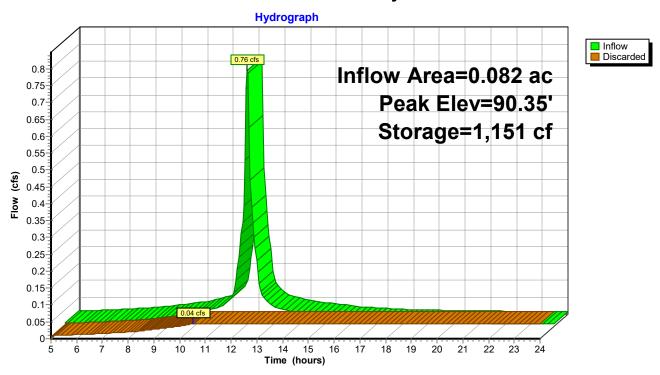




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Pond 1P: Infiltration System



Type III 24-hr 50-year Storm Event Rainfall=9.69"

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Summary for Pond 2P: Pervious Pavers

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth > 9.10" for 50-year Storm Event event

Inflow 0.28 cfs @ 12.09 hrs, Volume= 0.023 af

0.07 cfs @ 11.80 hrs, Volume= Outflow 0.023 af, Atten= 74%, Lag= 0.0 min

Discarded = 0.07 cfs @ 11.80 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 88.63' @ 12.45 hrs Surf.Area= 1,296 sf Storage= 184 cf

Plug-Flow detention time= 12.0 min calculated for 0.023 af (100% of inflow)

Center-of-Mass det. time= 11.7 min (771.0 - 759.3)

Volume	Inve	rt Avail.Sto	orage Storag	e Description	
#1	88.2	0' 4		m Stage Data (Pr cf Overall x 33.0%	ismatic) Listed below % Voids
Elevation (fee		Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
88.2	20	1,296	0	0	
89.2	20	1,296	1,296	1,296	
Device	Routing	Invert	Outlet Device	ces	
#1	Discarde	d 88.20'	2.410 in/hr l	Exfiltration over S	Surface area

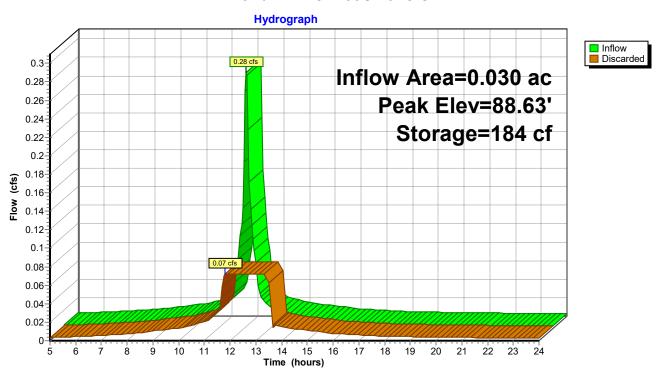
Discarded OutFlow Max=0.07 cfs @ 11.80 hrs HW=88.21' (Free Discharge)

1=Exfiltration (Exfiltration Controls 0.07 cfs)

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Pond 2P: Pervious Pavers



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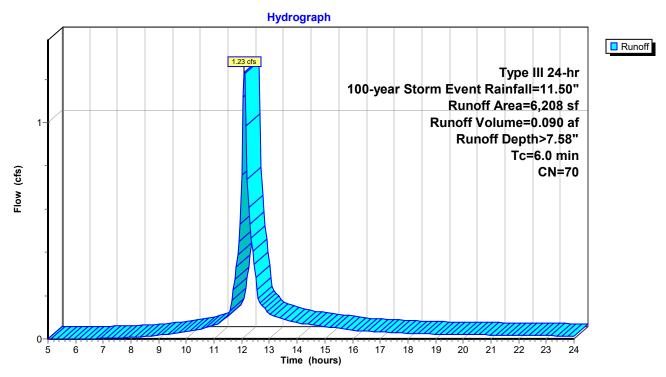
Summary for Subcatchment 1S: Remainder of Land

Runoff = 1.23 cfs @ 12.09 hrs, Volume= 0.090 af, Depth> 7.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 100-year Storm Event Rainfall=11.50"

A	rea (sf)	CN	Description					
	2,908	39	>75% Gras	s cover, Go	ood, HSG A			
	3,300	98	Paved park	ing, HSG A	<i>A</i>			
	6,208	70	Weighted Average					
	2,908		46.84% Pervious Area					
	3,300		53.16% Impervious Area					
Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
6.0					Direct Entry,			

Subcatchment 1S: Remainder of Land



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Summary for Subcatchment 2S: Roof

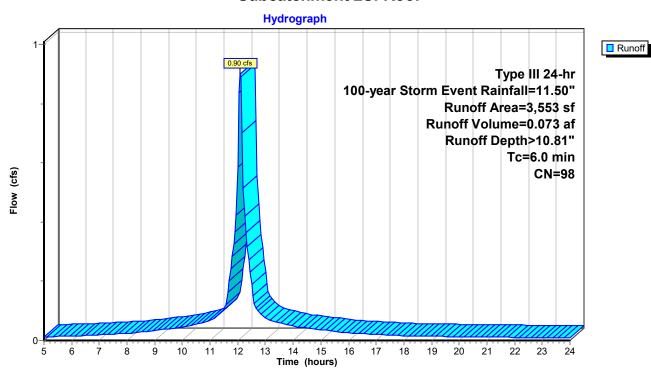
Runoff = 0.90 cfs @ 12.09 hrs, Volume= 0.073 af, Depth>10.81"

Routed to Pond 1P: Infiltration System

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 100-year Storm Event Rainfall=11.50"

A	rea (sf)	CN [Description				
	3,553	98 F	Roofs, HSG	Α			
	3,553	1	100.00% Impervious Area				
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	•		
6.0		•			Direct Entry,		

Subcatchment 2S: Roof



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Summary for Subcatchment 3S: Walks

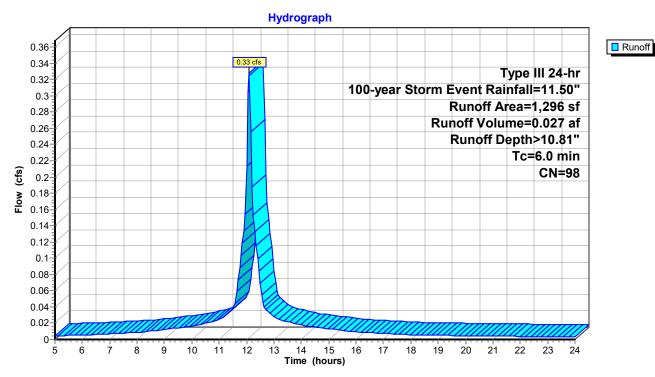
Runoff = 0.33 cfs @ 12.09 hrs, Volume= 0.027 af, Depth>10.81"

Routed to Pond 2P: Pervious Pavers

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 100-year Storm Event Rainfall=11.50"

A	rea (sf)	CN E	Description					
	1,296	98 F	98 Paved parking, HSG A					
	1,296	1	100.00% Impervious Area					
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
6.0					Direct Entry,			

Subcatchment 3S: Walks



Type III 24-hr 100-year Storm Event Rainfall=11.50"

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Summary for Pond 1P: Infiltration System

Inflow Area = 0.082 ac,100.00% Impervious, Inflow Depth > 10.81" for 100-year Storm Event event

Inflow = 0.90 cfs @ 12.09 hrs, Volume= 0.073 af

Outflow = 0.04 cfs @ 10.05 hrs, Volume= 0.062 af, Atten= 95%, Lag= 0.0 min

Discarded = 0.04 cfs @ 10.05 hrs, Volume= 0.062 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 91.06' @ 14.24 hrs Surf.Area= 802 sf Storage= 1,480 cf

Plug-Flow detention time= 243.4 min calculated for 0.061 af (83% of inflow)

Center-of-Mass det. time= 177.4 min (936.4 - 758.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	88.20'	578 cf	20.83'W x 38.50'L x 3.54'H Field A
			2,841 cf Overall - 1,088 cf Embedded = 1,753 cf x 33.0% Voids
#2A	88.70'	1,088 cf	Cultec R-330XLHD x 20 Inside #1
			Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf
			Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap
			Row Length Adjustment= +1.50' x 7.45 sf x 4 rows
	•	4 000 5	T () A () 1 0 (

1,666 cf Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	88.20'	2.410 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.04 cfs @ 10.05 hrs HW=88.24' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.04 cfs)

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Pond 1P: Infiltration System - Chamber Wizard Field A

Chamber Model = Cultec R-330XLHD (Cultec Recharger® 330XLHD)

Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 4 rows

52.0" Wide + 6.0" Spacing = 58.0" C-C Row Spacing

5 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 36.50' Row Length +12.0" End Stone x 2 = 38.50' Base Length

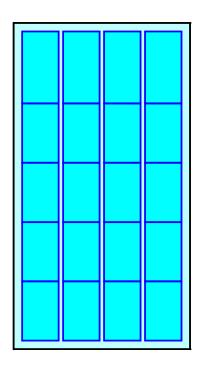
4 Rows x 52.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.83' Base Width 6.0" Stone Base + 30.5" Chamber Height + 6.0" Stone Cover = 3.54' Field Height

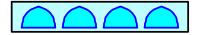
20 Chambers x 52.2 cf +1.50' Row Adjustment x 7.45 sf x 4 Rows = 1,087.8 cf Chamber Storage

2,840.7 cf Field - 1,087.8 cf Chambers = 1,752.9 cf Stone x 33.0% Voids = 578.4 cf Stone Storage

Chamber Storage + Stone Storage = 1,666.3 cf = 0.038 af Overall Storage Efficiency = 58.7% Overall System Size = 38.50' x 20.83' x 3.54'

20 Chambers 105.2 cy Field 64.9 cy Stone

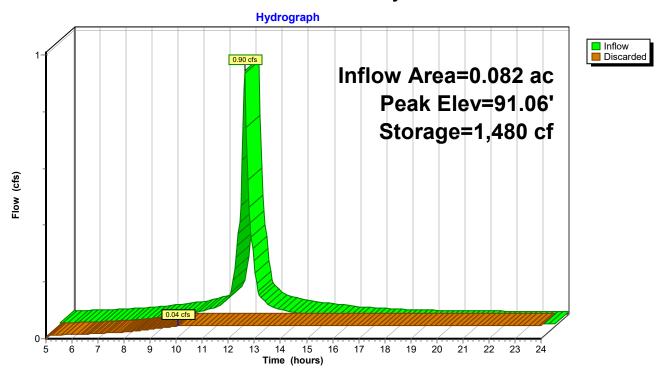




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Pond 1P: Infiltration System



Type III 24-hr 100-year Storm Event Rainfall=11.50"

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Summary for Pond 2P: Pervious Pavers

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth > 10.81" for 100-year Storm Event event

Inflow = 0.33 cfs @ 12.09 hrs, Volume= 0.027 af

Outflow = 0.07 cfs @ 11.75 hrs, Volume= 0.027 af, Atten= 78%, Lag= 0.0 min

Discarded = 0.07 cfs @ 11.75 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 88.79' @ 12.49 hrs Surf.Area= 1,296 sf Storage= 254 cf

Plug-Flow detention time= 17.4 min calculated for 0.027 af (100% of inflow)

Center-of-Mass det. time= 17.1 min (776.1 - 758.9)

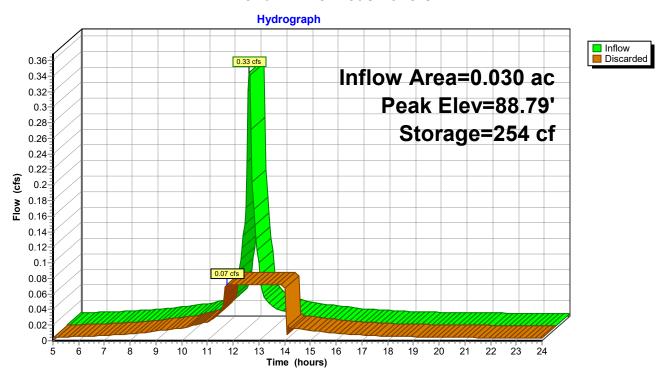
Volume	Invert	Avail.Sto	rage Stora	age Description	
#1	88.20'	42		com Stage Data (Prismatic) Liste 6 cf Overall x 33.0% Voids	d below
Elevation (fee		f.Area (sq-ft)	Inc.Store (cubic-feet)		
88.2	20	1,296	C	0	
89.2	20	1,296	1,296	1,296	
Device	Routing	Invert	Outlet Dev	vices	
#1	Discarded	88 20'	2 410 in/h	r Exfiltration over Surface area	

Discarded OutFlow Max=0.07 cfs @ 11.75 hrs HW=88.21' (Free Discharge) 1=Exfiltration (Exfiltration Controls 0.07 cfs)

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Pond 2P: Pervious Pavers



Operation
and
Maintenance
of
Drainage Systems
&
Construction Period Erosion and
Sediment Control

Operation and Maintenance Plan for Drainage Systems

Project Name: 821 Massachusetts Avenue

Date: September 6, 2024

Site Location: 821 Massachusetts Avenue

Arlington, Massachusetts

Site Operator:

Owner: Geoffrey Noves

gpnoyes@comcast.net

The following Operation and Maintenance Plan (O & M Plan) has been developed to comply with DEP's Stormwater Management Policy. The responsibilities outlined in the O&M Plan run with ownership of the property.

Subsurface Infiltration Systems

Infiltration systems are to be inspected by the homeowner at least twice per year and after every major storm event. The inspections will occur following the 3.2", 24 hour storm event.

To perform an inspection of the infiltration system, the observation port caps need to be removed. Once the caps are removed, the depth of sediment inside the system is measured and if the depth of sediment exceeds 3" then the system needs to be professionally cleaned. The subsurface system should only be cleaned by a professional drain/sewer company that is equipped with a vacuum type truck.

The typical cleaning process consists of flooding the system with clean water and allowing the deposited sediment to suspend, then pumping the water out via one of the inspection ports back into the vacuum truck.

Ensure proper operation of Subsurface Infiltration System:

- During construction, the contractor is to observe and inspect the drainage system on a weekly basis
- The homeowner is to note how long water remains standing in drainage structures after storm events and how well the water infiltrates over a period of 48 to 72 hours. If water remains in the system after 72 hours then the system is probably clogged and in need of cleaning. Contact a professional drain cleaner.
- The contractor is to repair items such as upland sediment erosion during the construction process. The homeowner is to maintain the property landscaped.

Semiannually inspection of systems for proper functioning and look for:

- Subsidence
- Cracking of structures
- Depth of sediment inside system

Scheduled Maintenance:

- Remove sediment from subsurface systems at least once every 2 years; The Cultec systems are to be maintained according to manufacturer recommendations.
- Dispose and transport accumulated sediment off-site in accordance with local, state and federal guidelines and regulations; Sediment is typically removed by filling the Cultec Systems with water and then removing it using a vacuum truck. See above for inspection criteria.

Pervious Pavers

- Control of sediment is important to maintain the permeability of the pervious pavers.
- The performance of the driveway shall be verified by the in-field test methodology described in ASTM C-1701 upon completion.

Ensure proper operation of Pervious Pavers

- Keep silt and debris from entering onto the pervious pavers.
- Sand or other abrasives for snow or ice conditions shall not be used as they reduce permeability of the pavers.
- Observe the paver surface for signs of sediment or organic debris accumulation.
- Use high performance, regenerative air vacuum equipment to clean surfaces. Mechanical brooms shall not be used.

Semiannually inspection for proper functioning and look for:

• Standing water on paver surface.

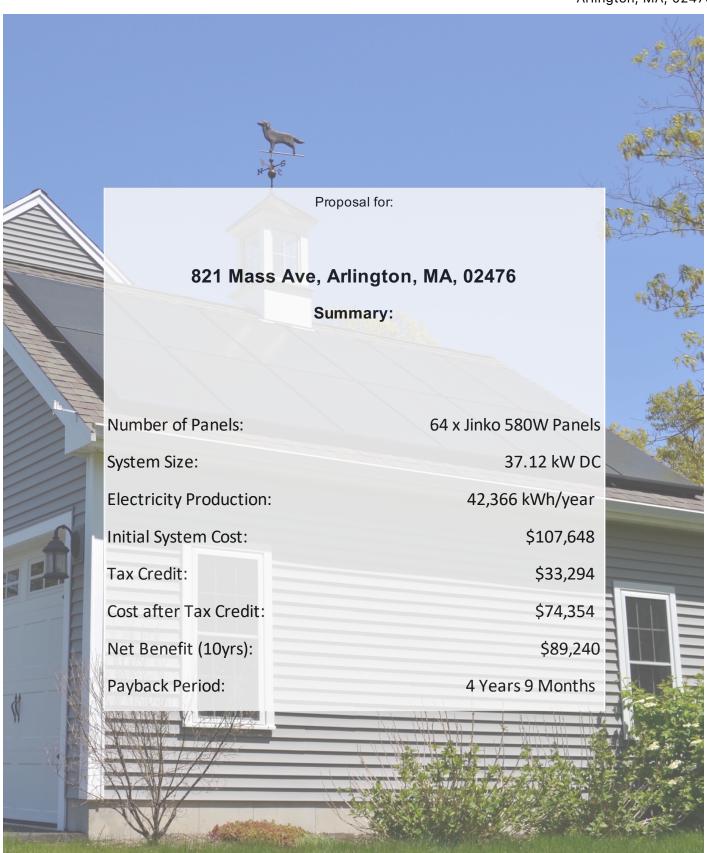
Yearly Scheduled Maintenance:

- Inspect surface of pavers for evidence of sediment deposition, organic debris, staining or ponding. If any sign of ponding are evident, contact a professional paver cleaner for high performance vacuuming.
- Inspect the integrity of the pavers. Replace or repair any areas that show deterioration, such as slumping or cracking.
 - Estimated maintenance cost is \$1000 for a vacuum service every two years.

Construction Period Erosion and Sediment Control

Prior to start of construction the following measures will need to be in place:

- Stake erosion control barrier on the locations shown on the site plan.
- Install the stabilized construction entrance at the beginning of the driveway to prevent sediment from entering the roadway. Sweep roadway daily during the site construction period and end of day activities. No sediment shall be left on roadway.
- After every major storm event and on a weekly basis, verify erosion control barrier is held in place properly and sediment is retained. Remove accumulated sediment and replace barrier as needed.



Prepared on 7/19/24 Page 1/8

Design and Equipment

Production Factor: 64 Panels @ 1.141 kWh/W



Equipment used:

Panels

Inverter system

Manufacturer:

Jinko

Enphase

Model:

JKM580N-72HL4-BDV IQ8HP-3P

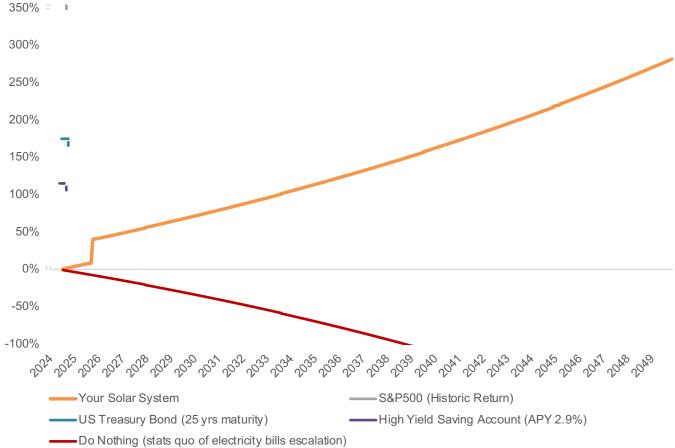
Prepared on 7/19/24 Page 2/8

Solar is an Investment

Key points:

- Solar is not a luxury good; It is a hedge against market uncertainty, inflation, and rising utility rates.
- Investment markets are becoming more volatile over time, making it difficult to predict returns. Solar offers
 a strong, low-risk high reward and guaranteed rate of return.
- Solar provides the unique ability to forecast your cash flows down to the month with real-time data so your return on investment is clear and guaranteed.
- Solar ensures a return of over 40% in year 1, in the form of the 30% Federal Tax Credit, \$1,000 State Tax Rebate, avoided electricity costs, and Class-1 RECs. *Must consult a tax professional.
- Owning your electricity (solar) builds equity in your home and reduces your dependency from the utility.





^{***} For additional information and details, ask your analyst for our assumptions.

Prepared on 7/19/24 Page 3/8

Twenty-Year Financial Analysis For Solar

Year	Con	Cumulative		
	Electricity Savings	Incentive Earnings	Cumulative Total	Net Benefits
0	\$0	\$0	\$0	(\$107,648)
1	\$13,557	\$1,398	\$14,955	(\$59,398)
2	\$13,858	\$1,391	\$30,204	(\$44,150)
3	\$14,165	\$1,384	\$45,753	(\$28,601)
4	\$14,479	\$1,377	\$61,609	(\$12,745)
5	\$14,800	\$1,370	\$77,779	\$3,425
6	\$15,128	\$1,363	\$94,270	\$19,916
7	\$15,463	\$1,357	\$111,089	\$36,735
8	\$15,806	\$1,350	\$128,244	\$53,891
9	\$16,156	\$1,343	\$145,743	\$71,390
10	\$16,514	\$1,336	\$163,594	\$89,240
Subtotal:	\$149,923	\$13,670	\$163,594	\$89,240
11	\$16,880	\$1,330	\$181,804	\$106,120
12	\$17,254	\$1,323	\$200,381	\$123,374
13	\$17,636	\$1,316	\$219,334	\$141,011
14	\$18,027	\$1,310	\$238,671	\$159,038
15	\$18,427	\$1,303	\$258,401	\$177,465
16	\$18,835	\$1,297	\$278,533	\$196,300
17	\$19,253	\$1,290	\$299,076	\$215,553
18	\$19,679	\$1,284	\$320,040	\$235,233
19	\$20,116	\$1,277	\$341,433	\$255,348
20	\$20,561	\$1,271	\$363,265	\$275,910
Total:	\$336,593	\$26,672	\$363,265	\$275,910

Payback Period: 4 Years 9 Months

Great Sky Solar

Great Sky Solar was founded on a vision of combining clean energy with a clean and transparent business model.

We are small by design, connected to our community, and hire the best people. We never subcontract any portion of our work, and all of our employees enjoy strong salaries and a healthy work/life balance. On these principles, we've been able to build a truly sustainable company so we can offer you un-paralleled service and expert craftsmanship, at very competitive rates.

Every solar array installed by Great Sky Solar is backed by:

- · 10-year 95% Production Guarantee: ensures your system will produce as forecasted.
- · 10-year Service Guarantee: we service any issues with your system at no charge.
- · 25-year Workmanship Warranty: we stand by the quality of our work.

Our stated price is all-inclusive and will not increase or change. As soon as we receive your go-ahead, we'll begin administration and permitting. You are welcome to make any changes to equipment type or system size up 2 weeks prior to install. When you are ready to move forward, we will send a contract for electronic signature.

Feel free to call us at (781) 819-5313 for more information or with any questions.



Prepared on 7/19/24 Page 6/8



Arlington Fire Department Town of Arlington

Fire Prevention Division

411 Mass Ave, Arlington, MA 02474 Phone: (781) 316-3803 Fax: (781) 316-3808 Email: rmelly@town.arlington.ma.us

Ryan Melly Deputy Chief Fire Prevention

MEMO TO: Andres Rojas

FROM: Deputy Chief Ryan Melly

DATE: September 5, 2024 **SUBJECT:** 821 Mass Ave Project

After reviewing the plans for the 3 story project at 821 Mass Ave I had deemed that there is adequate fire department access to the site pending your confirmation that our Tower will be able to make the turn through the CVS parking lot to gain access to the rear of the building. You have received our turning radius spec sheet to assist the engineers in mapping out the access.

ATTORNEY-CLIENT PRIVILEGE

MEMORANDUM

To: Claire Ricker, Director, Department of Planning and Community Development

From: Michael Cunningham, Town Counsel

Jaclyn Munson, Deputy Town Counsel

Date: August 28, 2029

Re: Atwood House Special Permit

Background:

On April 13, 2009, the Town's Redevelopment Board ("ARB") issued its decision (the "Decision") approving CVS' ("Applicant") request for a special permit subject to environmental design review ("EDR") for the premises located at 833 Massachusetts Avenue in Arlington, MA (the "Site"). See Docket 3348. On the Site stands the Atwood House, an historical structure within Town limits.

The ARB Decision expressly stated that "[a]ny modification of the Atwood House [would] require an amendment" of the special permit issued. <u>See</u> Decision, EDR-10. The ARB subsequently re-opened the special permit by way of new decisions dated November 4, 2019 (the "2019 Decision"). The 2019 Decision, however, was re-opened to permit the Applicant's installation of new consistent with CVS branding. <u>See</u> 2019 Decision at 2. Upon information and belief, the ARB has not previously re-opened the special permit for the Site to consider any modifications of its prior conditions regarding the Atwood House.

Question presented:

Can the ARB open a *new* special permit for purposes of issuing a decision regarding the proposed demolition of the Atwood House, or must the ARB re-open the original special permit?

Brief answer:

The ARB may open a new special permit so long as it amends the original special permit to reflect the modification.

Legal Analysis:

I. ARB authority

The ARB was created by state law (Chapter 738 of the Acts of 1971, amending Chapter 503 of the Acts of 1952, the Town Manager Act) and has authority to issue special permits for projects that require an EDR pursuant to the Town's Zoning Bylaw, s. 3.4. As a result, the ARB is a 'special permit granting authority' under the state's zoning law, M.G.L. ch. 40A.

ATTORNEY-CLIENT PRIVILEGE

II. Although the ARB has the authority to modify a special permit, it has the discretion to open a new special permit.

A condition imposed by the ARB in connection with issuing a special permit may later be modified or eliminated by the planning board. <u>Vaillancourt v. Gray Wolf Realty, LLC</u>, 29 Mass. L. Rep. 496 (2012). This means that the ARB has the authority to both impose conditions and modify – or even eliminate—those conditions thereafter. <u>Id.</u> The discretion for the ARB to modify a special permit is further enshrined in the spirit of ch. 40A, s. 11 ("Upon the granting of a variance or special permit, or any extension, *modification* or renewal thereof..."; "A special permit, or any extension, *modification* or renewal thereof...")

Notably, there is nothing contained in 40A that *requires* the ARB to modify a special permit, rather than open a new special permit. Conversely, the spirit of 40A and longstanding case law confers upon the ARB broad discretion to deny the modification of a special permit.

This is because the judicial review of ARB decisions "involves a highly deferential bow to local control over community planning," <u>Britton v. Zoning Bd. of Appeals of Gloucester</u>, 59 Mass. App. Ct. 68, 73, 794 N.E.2d 1198 (2003), thereby constraining the power of courts to order a modification of the ARB's decision. <u>Wendy's Old Fashioned Hamburgers of N.Y.</u> Inc. v. Bd. of <u>Appeal of Billerica</u>, 454 Mass. 374, 382 (2009). This is because modifications "should be analyzed and approved by the [ARB], which is better equipped than a court to consider such matters." <u>Id.</u>, *citing* <u>Board of Appeals of Dedham v. Corporation Tifereth Israel</u>, 7 Mass. App. Ct. 876, 876 (1979).

Although the special permit issued by the ARB has not yet lapsed (upon information and belief), meaning that the ARB *could* reopen it for purposes of issuing a decision regarding the demolition of the Atwood House, the ARB is not *required* to modify that special permit. This decision is squarely within the discretion of the ARB. See <u>Barlow v. Planning Bd of Wayland</u>, 64 Mass.App.Ct 314, 320 (2005) ("Whether we term the application as a modification of a special permit or a new one, the matter involves the discretion of the planning board").

Therefore, the ARB may open a new permit for the Atwood House.

Conclusion:

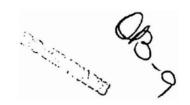
The ARB has the authority to open a new permit for the Atwood House. In doing so, it must comply with any obligations under ch. 40A, the ARB's rules and regulations and the Town's Zoning Bylaw.

JAN-27-2010 15:30

Bk: 54217 Pg: 169



Bk: 54217 Pg: 169 Doo: LEASE Page: 1 of 9 01/27/2010 03:22 PM



P.02/02

MEMORANDUM OF LEASE

Notice is hereby given of the Lease hereinafter described.

PARTIES TO LEASE:

LANDLORD: Noyes Realty, LLLP

114 Andros Road Key Largo, FL 33037

TENANT: Massachusetts CVS Pharmacy, L.L.C.

a Massachusetts limited liability company

One CVS Drive

Woonsocket, RI 02895

DATE OF EXECUTION OF LEASE: August 20, 2009, as amended October 28, 2009

INITIAL TERM OF LEASE: The Initial Term of the Lease shall commence on

January 26, 2010 and shall expire twenty-five (25) years from the Date of Rent Commencement, plus any months and day necessary to have the term expire

on the next January 31st.

DESCRIPTION OF LEASED PREMISES:

That certain lot or parcel of land situated at 821-837 Massachusetts Avenue, in the Municipality of Arlington, County of Middlesex, Commonwealth of Massachusetts, as more particularly described in **Exhibit A** attached hereto and incorporated herein by reference.

OPTIONS TO EXTEND LEASE:

Tenant has the option to extend the Term of this Lease, for three (3) extension periods of five (5) years each, exercisable by written notice given not later than six (6) months prior to the expiration of the Initial Term or the expiration of the then applicable extension period.

RIGHT OF FIRST REFUSAL

Tenant has the right of first refusal to purchase all or any portion of the Premises.

50754-229

EXCLUSIVITY:

(a) If Landlord, or any of Landlord's Affiliates, hold or acquire any interest in any land immediately adjacent to the Premises or at the same intersection as the Premises, in the event that the Premises is located at an intersection, (whether accomplished directly by direct ownership, or indirectly through the use of leases, cross-easement agreements or similar documents), during the Term, Landlord agrees that (unless any premises on said land are already so leased and/or used) Landlord shall not allow any of the premises on such land to be leased or to be used for a health and beauty aids store, a greeting card and gift store, a candy store, a store offering one-hour or other on-site photo processing, a vitamin store, a pharmacy mail order facility, a drug store, a pharmacy prescription department, and/or a Dollar Store.

(b) As used in the Lease: the term "pharmacy prescription department" shall include the dispensing of prescription drugs by physicians, dentists, other health care practitioners, or entities such as health maintenance organizations, where such dispensing is for profit; and a "health and beauty aids store" shall mean a store which devotes more than five percent (5%) of its retail selling space to the display and sale of health and beauty aids.

MISCELLANEOUS:

This instrument is only a brief summary of certain provisions for the purpose of giving notice of the Lease and is not deemed to amend the Lease in any respect. Reference is hereby made to the Lease for a more complete description of the terms. In the event of any conflict between the terms of the Lease and the terms of this Memorandum of Lease, the terms of the Lease shall control.

[Remainder of Page Intentionally Blank; Signatures Follow]

#993691v1

IN WITNESS WHEREOF, the parties hereto have duly executed this Memorandum of Lease as of this 26th day of January, 2010.

LANDLORD:

Neyes Realty, LLLP
a Florida limited liability limited partnership
By: Name: Bradley P. Noves Its: General Partner

TENANT:

Massachusetts CVS Pharmacy, L.L.C.
a Massachusetts limited liability company

Ву:			
Name:			
Its:			

IN WITNESS WHEREOF, the parties hereto have duly executed this Memorandum of Lease as of this day of January, 2010.

LANDLORD:

Noyes Realty, LLLP a Florida limited liability limited partnership
By:Name:
Its:
TENANT:
Massachusetts CVS Pharmacy, L.L.C.
a Massachusetts limited liability company
By: Diaho McMonagle-Glass
Name: Assistant Secretary
Its:

ACKNOWLEDGEMENTS

STATE OF FLORIDA)
County of Morrol) SS:)
being by me duly sworn, did depose Florida limited liability limited partr	2010, before me personally appeared Bradley P. Noyes, who, and say that he is the General Partner of Noyes Realty, LLLP, a nership described in this instrument and that he executed this my and that he had authority to do so.
(NOTARY SEAL)	Name <u>E/lie P Parker</u> NOTARY PUBLIC
ELLIE P PARKER MY COMMISSION # DD:66989 (EXPIRES: July 6, 2010 (407) 308-0153 Florida Notary Service.com	
STATE OF RHODE ISLAND)
COUNTY OF PROVIDENCE) SS:)
, who,	y, 2010, before me personally appeared, being by me duly sworn, did depose and say that he/she is the chusetts CVS Pharmacy, L.L.C., a Massachusetts limited
liability company described in this in said company and that he/she had au	nstrument and that she executed this instrument on behalf of athority to do so.
	Name:
	NOTARY PUBLIC

ACKNOWLEDGEMENTS

Commonwealth of	f Massachusetts)) SS:
County of)
	day of January, 2010, before me personally appeared, who, being by me duly sworn, did depose and say that he is the of Noyes Realty, LLLP, a Florida limited liability limited partnership strument and that he executed this instrument on behalf of said company and that do so.
	Name:NOTARY PUBLIC
liability company	day of January, 2010, before me personally appeared described in this instrument and the she executed this instrument on behalf of that he/she had authority to do so. NOTARY PUBLIC i Jawn M. Bucci
	Notary Public State of Rhode Island My Commission Expires 07/24/2010

EXHIBIT A

LEASED PREMISES DESCRIPTION

The parcels of land in Arlington, Middlesex County, Massachusetts, bounded and described as follows:

PARCEL ONE/RECORDED LAND

The land in said Arlington, with the buildings thereon now numbered 835 Massachusetts Avenue, bounded:

SOUTHWESTERLY by said Massachusetts Avenue, fifty-five and 83/100 (55.83) feet;

NORTHWESTERLY by land now or formerly of Kimball, two hundred fifty-three and

62/100 (253.62 feet);

NORTHERLY by land nor or formerly of Cutter, one hundred thirty-nine and

28/100 (139.28) feet;

SOUTHEASTERLY by land now or formerly of Noyes Realty LLLP, being the second

parcel herein described, by three lines totaling three hundred fifty

and 42/100 (350.42) feet.

Containing approximately nineteen thousand eight hundred twenty-four (19,824) square feet of land.

PARCEL TWO/RECORDED LAND

The land in said Arlington, with the buildings thereon numbered 833 Massachusetts Avenue, bounded:

SOUTHWESTERLY by said Massachusetts Avenue, fifty (50) feet;

NORTHWESTERLY by land now or formerly of Noyes Realty LLLP, being the first

parcel hereinbefore described, by three lines totaling three hundred

fifty and 42/100 (350.42) feet;

NORTHEASTERLY by land now or formerly of Frost Insecticide Company, one

hundred twenty-nine and 8/10 (129.8) feet;

SOUTHEASTERLY by land now or formerly of Teel, two hundred seventy-eight and

9/10 (278.9) feet.

Containing approximately twenty-eight thousand seven hundred eighty-nine (28,789) square feet of land.

PARCEL THREE/RECORDED LAND

A certain parcel of land with the buildings thereon, situated in said Arlington and being a parcel shown as containing 18,700 square feet of land on a "Plan of Land of Emily A. Teel, Arlington, Mass.", Middlesex Southern District Registry of Deeds in Book of Plans 207, Plan 8 bounded and described as follows:

SOUTHWESTERLY by Massachusetts Avenue, 123.65 feet;

NORTHWESTERLY by land formerly of N. L. Chaffi, 278.9 feet;

NORTHEASTERLY by land now or formerly of Frost Insecticide Company, 46.43 feet;

and

SOUTHEASTERLY by land now or formerly of Howard in three courses, as shown on

said plan, 66.65 feet; 87.79 feet and 90.65 feet.

PARCEL FOUR/RECORDED LAND

A certain parcel of land with the building thereon in Arlington, County of Middlesex, and said Commonwealth, the unregistered parcel being shown as Lot A on a plan entitled "Plan of Land of Emily A. Teel, Arlington, Mass." dated April 29, 1912, C. H. Cannett, C.E., recorded with Middlesex South District Deeds, Plan Book 207, Plan 8, and according to said plan more fully bounded and described as follows:

SOUTHWESTERLY by Massachusetts Avenue 49.07 feet;

WESTERLY and

NORTHWESTERLY by a lot containing 18,700 sq. ft. of land, by two courses

respectively measuring 90.65 feet and 154.44 feet;

NORTHEASTERLY by land of Frost Insecticide Co., 38.06 feet;

SOUTHEASTERLY by land of Arlington Baptist Society, 169.54 feet; and again

SOUTHEASTERLY by Parcel Five herein after described 62.6 feet.

PARCEL FIVE/REGISTERED LAND

A certain parcel of land situated in Arlington, County of Middlesex and said Commonwealth, the registered Parcel being shown as Lot B on a Subdivision Plan filed in the Registry of Deeds for the South Registry District of Middlesex County in Registration Book 4, Page 341 with Certificate 523 (Plan #312A). According to said plan the parcel is bounded and described as follows:

SOUTHWESTERLY by Massachusetts Avenue, 12 feet;

NORTHWESTERLY by land now or formerly of Emily A. Teel, 62.6 feet; and

SOUTHEASTERLY by Lot A as shown on plan hereinbefore mentioned, 60.2 feet.



Town of Arlington, Massachusetts

Department of Planning and Community Development 730 Massachusetts Avenue, Arlington, Massachusetts 02476

Public Hearing Memorandum

The purpose of this memorandum is to provide the Arlington Redevelopment Board and public with technical information and a planning analysis to assist with the regulatory decision-making process.

To: Arlington Redevelopment Board

From: Claire V. Ricker, AICP Secretary Ex-Officio

Subject: Environmental Design Review, 821 Massachusetts Avenue, Arlington, MA, Docket #3798

Date: September 19, 2024

Docket Summary

This is an application by Noyes Realty LLLP, PO Box 40, Marblehead, MA 01945, to open Special Permit Docket #3798 in accordance with the provisions of MGL Chapter 40A § 11, and the Town of Arlington Zoning Bylaw Section 3.3, Special Permits, and Section 3.4, Environmental Design Review.

The applicant proposes to demolish the existing building and construct a mixed-use building located at 821 Massachusetts Avenue, Arlington, MA, in the B4 Vehicular Oriented Business District. The opening of the Special Permit is to allow the Board to review and approve the project under Section 3.3, Special Permits, and Section 3.4, Environmental Design Review.

Materials submitted for consideration of this application include:

- Application for EDR Special Permit,
- Impact Statement,
- Dimensional and Parking Information,
- Architectural Drawings.

Addition materials submitted for consideration of this application include:

- Drainage Calculation Report
- Fire Department Memo
- Solar Array Study

- LEED NC Checklist
- Shade Report
- Tree Evaluation Letter
- Updated Application for EDR Special Permit
- Updated Architectural Drawings
- Sketch-up model and video

II. Application of Special Permit Criteria (Arlington Zoning Bylaw, Section 3.3)

1. <u>Section 3.3.3.A.</u>

The use requested is listed as a Special Permit in the use regulations for the applicable district or is so designated elsewhere in this Bylaw.

821 Massachusetts Avenue is located in the B-4: Vehicle Oriented Use District. Regarding the B-4 District, in Section 5.5.1.E., of the Zoning Bylaw states: "Arlington has an abundance of automotive and automotive accessory sales and service establishments. As these businesses gradually close, The Town has encouraged conversion of the property to other retail, service, office, or residential use, particularly as part of a mixed-use development." Mixed-use residential and office space development is allowed in the B4 District. The Board can find that this condition is met.

2. <u>Section 3.3.3.B.</u>

The requested use is essential or desirable to the public convenience or welfare.

The requested use is essential and desirable. The Master Plan promotes mixed-use developments as a means to revitalize business districts, by bringing customers and street life to commercial areas. From a land use perspective, the Master Plan encourages development of higher value mixed-use buildings along commercial corridors, especially Mass Ave, by allowing taller buildings and reducing off-street parking requirements. The Board can find that this condition is met.

3. <u>Section 3.3.3.C.</u>

The requested use will not create undue traffic congestion or unduly impair pedestrian safety.

The proposed project includes ten parking spaces for cars, located on the ground level of the property, composed of nine standard parking spaces and one ADA accessible parking space. Parking and traffic flow will be blended with the traffic and parking activities at the abutting address, 833 Mass Ave (CVS), with the proposed new building utilizing the entry and exit curb cuts. Parking for the development will be located behind the new building. The Board can find that this condition is met.

4. Section 3.3.3.D.

The requested use will not overload any public water, drainage or sewer system or any other municipal system to such an extent that the requested use or any developed use in the immediate area or in any other area of the Town will be unduly subjected to hazards affecting health, safety, or the general welfare.

Drainage calculations were included in the submission that indicate site stormwater run-off will be improved via the project. Additionally, the project narrative states that site design for the parcel shall

include proper site surface drainage so that removal of surface waters will not adversely affect neighboring properties or the public storm drainage system. The project will employ Best Management Practices for the site including determination of the feasibility of installing an underground filtration system beneath the parking area. A landscaped buffer will be introduced on the site and several trees will be planted. Overall, the narrative and report indicate that the project should result in a reduction in the quantity of stormwater flowing from the site. The Board can find that this condition is met.

5. Section 3.3.3.E.

Any special regulations for the use as may be provided in the Bylaw are fulfilled.

Any special regulations for the use that may be provided in the Bylaw will be fulfilled. The Board can find that this condition is met.

6. <u>Section 3.3.3.F.</u>

The requested use will not impair the integrity or character of the district or adjoining districts, nor be detrimental to the health, morals, or welfare.

The project proposes ground floor office use with residential units above, uses that have been in this location since at least 1911 when Dr. Charles Atwood opened a medical office in his residence at 821 Mass Ave. The replication of commercial office space and residential units is described in the definition of the B4 zoning district as desirable; the definition specifically states, "the Town has encouraged conversion of the property to other retail, service, office, or residential use, particularly as part of mixed-use development." In particular, this proposal both increases overall commercial space on the property and provides new housing. These additions will not impair the integrity or character of the district, or the adjoining districts and it will not be detrimental to health or welfare. The Board can find that this condition is met.

7. <u>Section 3.3.3.G.</u>

The requested use will not, by its addition to a neighborhood, cause an excess of the use that could be detrimental to the character of said neighborhood.

There will be no excess of mixed-use in the neighborhood as a result of this development; rather the Applicant's proposal will comport with the objectives of the Master Plan to maintain a mixed-use component along Mass Ave. Furthermore, the proposed mixed-use building will not be detrimental to the character of the neighborhood in which the property is located. The Board can find that this condition is met.

III. <u>Environmental Design Review Standards (Arlington Zoning Bylaw, Section 3.4)</u>

1. EDR-1 Preservation of Landscape

The landscape shall be preserved in its natural state, insofar as practicable, by minimizing tree and soil removal, and any grade changes shall be in keeping with the general appearance of neighboring developed areas.

The project proposes to remove eight existing trees. The existing parking area "side buffer" tree plantings shall remain, and all landscape areas facing the abutters shall be enhanced and improved

with new plantings. The existing landscape shall be preserved, as far as practicable. This project minimizes tree and soil removal, and all grade adjustments are in keeping with the general appearance of neighboring developed areas. The Board can find that this condition is met.

2. EDR-2 Relation of the Building to the Environment

Proposed development shall be related harmoniously to the terrain and to the use, scale, and architecture of the existing buildings in the vicinity that have functional or visible relationship to the proposed buildings. The Arlington Redevelopment Board may require a modification in massing so as to reduce the effect of shadows on the abutting property in an R0, R1 or R2 district or on public open space.

There are a range of architectural styles and zoning districts in the vicinity, ranging from single- and two-family homes to apartment buildings, and from single-story commercial to mixed-use developments. Building heights in the area vary from one to four stories and have a variety of setbacks in relationship to their street frontage. The proposal will bring the building closer to the street, improving its relationship to the public realm. The new building's setbacks are consistent with the abutters' setbacks. The proposed new building will relate harmoniously to the lot's terrain and to the use, scale, setbacks, and architecture of the existing buildings in the vicinity that have a functional or visual relationship to the building. The Board can find that this condition is met.

3. EDR-3 Open Space

All open space (landscaped and usable) shall be so designed as to add to the visual amenities of the vicinity by maximizing its visibility for persons passing by the site or overlooking it from nearby properties. The location and configuration of usable open space shall be so designed as to encourage social interaction, maximize its utility and facilitate maintenance.

The proposal includes approximately 5,400 square feet of landscaped open space along the sides and rear of the building, which also provides a buffer with the adjacent buildings at 833 Mass Ave (CVS) and the Baptist Church at 815 Mass Ave. The total residential floor area is approximately 8,200 square feet, therefore over 50% landscaped open space is proposed, exceeding the 10% requirement. The Applicant will add a street tree immediately in front of the building.

The usable open space is located on the separated roof decks and is approximately 4,448 square feet, well in excess of the usable open space requirement of 15%.

Additionally, under this proposal the Applicant will likely require relief from the required 15-foot buffer in Section 5.3.21, as the Baptist Church property adjacent to the project is located in an R1 district and a landscaped buffer is precluded by the building footprint. Section 5.3.21 refers to Section 5.3.7, of which subsection B refers to the screening provisions laid out in Section 6.1, of which Section 6.1.11(E) lays out conditions under which the landscaping standards may be modified. Under this latter section, the Board may find that the proposal has adequately adopted reasonable measures to meet the intent of the standards and also provided landscaped space at another location in the parking lot.

4. EDR-4 Circulation

With respect to vehicular and pedestrian and bicycle circulation, including entrances, ramps, walkways, drives, and parking, special attention shall be given to location and number of access points to the public streets (especially in relation to existing traffic controls and mass transit facilities), width of interior drives and access points, general interior circulation, separation of pedestrian and vehicular traffic, access to community facilities, and arrangement of vehicle parking and bicycle parking areas, including bicycle parking spaces required by Section 6.1.12 that are safe and convenient and, insofar as practicable, do not detract from the use and enjoyment of proposed buildings and structures and the neighboring properties.

The proposed project includes a total of ten vehicle spaces. Ten exterior bicycle parking spaces shall also be provided. Each commercial and residential unit has designated basement storage area where bicycles may also be stored. The ground-level parking area provides nine standard parking spaces for vehicles, and one van-accessible HP vehicle space. Parking access is provided via Mass Ave; however vehicles will utilize the curb cut at 833 Mass Ave (CVS) and proceed through the CVS parking area to access the parking behind the new building. Additional on-street parking is available along Mass Ave.

The parking requirement for mixed-use development calculates the parking required for each individual use; the parking required for the residential use totals three parking spaces. As the first 3,000 square feet of non-residential space in mixed-use buildings is exempt from the parking requirements per Section 6.1.10.C., no parking is required for the office space, however the applicant shall provide seven additional spaces.

Pedestrian circulation around the building would be improved as the current site lacks pedestrian access around the existing building. Paved walkways will connect the parking area to the residential units and the rear of the commercial units, which are buffered on the Mass Ave side with an approximately 10' setback. Access to the residential units is provided directly via the rear parking area, as is access to the trash and recycling receptacle. A street tree will be planted in front of the project, providing shade and improving the human scale elements of the ground floor commercial space on Mass Ave. A walkway from the front to the rear of the building that is accessible from Mass Ave will be installed. Tenants and visitors arriving to the project via Mass Ave can access the rear residential unit entrances and bicycle parking area from the front of the building. Structural engineered soils shall be used under the hardscape, and the Applicant has provided details on the types of pavers or bricks selected to ensure ADA compliance. The Board can find this condition is met.

5. EDR-5 Surface Water Drainage

Special attention shall be given to proper site surface drainage so that removal of surface waters will not adversely affect neighboring properties or the public storm drainage system. Available Best Management Practices for the site should be employed, and include site planning to minimize impervious surface and reduce clearing and re-grading. Best Management Practices may include erosion control and stormwater treatment by means of swales, filters, plantings, roof gardens, native vegetation, and leaching catch basins. Stormwater should be treated at least minimally on the development site; that which cannot be handled on site shall be removed from all roofs, canopies, paved and pooling areas and carried away in an underground drainage system. Surface water in all paved areas shall be collected in intervals so that it will not obstruct the flow of vehicular or pedestrian traffic and will not create puddles in the paved areas.

In accordance with Section 3.3.4., the Board may require from any applicant, after consultation with the Director of Public Works, security satisfactory to the Board to ensure the maintenance of all

stormwater facilities such as catch basins, leaching catch basins, detention basins, swales, etc. within the site. The Board may use funds provided by such security to conduct maintenance that the applicant fails to do.

The Board may adjust in its sole discretion the amount and type of financial security such that it is satisfied that the amount is sufficient to provide for any future maintenance needs.

The application materials state that surface water drainage will be improved via the installation of Best Management Practices elements that will reduce stormwater runoff from the site. Available Best Management Practices for the site shall be employed and include site planning to minimize impervious surface and reduce clearing and re-grading. The applicant shall maintain all the existing and proposed storm water facilities such as catch basins, leaching catch basins, detention basins, swales, etc. within the site.

A stormwater infiltration analysis has been submitted and determines which areas of the site are appropriate for stormwater infiltration systems, and determines the amount of runoff the project will generate. Drainage calculations were included in the submission that indicate site stormwater run-off will be improved via the project. Final design materials must be submitted for review and approval by the Town Engineer, including a site plan that shows catch basins and filtration systems. The Board can find this condition is met.

6. EDR-6 Utilities Service

Electric, telephone, cable TV, and other such lines of equipment shall be underground. The proposed method of sanitary sewage disposal and solid waste disposal from all buildings shall be indicated.

All proposed electric, telephone, cable TV, and other such lines and equipment shall be underground. The proposed method of sanitary sewage disposal and solid waste disposal from all buildings shall be in accordance with all codes and local requirements. Water and sewer should be separated by ten feet and domestic protection should adhere to what the Water Division requires. The Board can find this condition is met.

7. EDR-7 Advertising Features

The size, location, design, color, texture, lighting and materials of all permanent signs and outdoor advertising structures or features shall not detract from the use and enjoyment of proposed buildings and structures and the surrounding properties.

All signage and advertising features will conform to the provisions of Section 6.2 of the Zoning Bylaw. The Board can find that this condition is met.

8. EDR-8 Special Features

Exposed storage areas, exposed machinery installations, service areas, truck loading areas, utility buildings and structures, and similar accessory areas and structures shall be subject to such setbacks, screen plantings or other screening methods as shall reasonably be required to prevent their being incongruous with the existing or contemplated environment and the surrounding properties.

The site plan shows an enclosed trash and recycling area located adjacent to the parking area on the rear of the property. The Board can find that this condition is met.

9. EDR-9 Safety

With respect to personal safety, all open and enclosed spaces shall be designed to facilitate building evacuation and maximize accessibility by fire, police and other emergency personnel and equipment. Insofar as practicable, all exterior spaces and interior public and semi-public spaces shall be so designed to minimize the fear and probability of personal harm or injury by increasing the potential surveillance by neighboring residents and passersby of any accident or attempted criminal act.

The Applicant notes that the proposed building shall be designed to meet all relevant health and safety codes. Complete site and building security systems shall be incorporated into the proposed development. The safety and security of all residents, visitors, customers, and neighbors are important priorities of this project. A lighting plan has been submitted and is included in the updated architectural drawings. The Board can find this condition is met.

10. EDR-10 Heritage

With respect to Arlington's heritage, removal or disruption of historic, traditional or significant uses, structures or architectural elements shall be minimized insofar as practical whether these exist on the site or on adjacent properties.

The existing building, also known as the "Atwood House," has been located on the property since at least 1911 and has deteriorated over time to the point where restoration is infeasible. The applicant sought to demolish the house in anticipation of building a new development and was placed under demolition delay by the Historical Commission, which has since expired. As it stands today, the Arlington Police have been called to the site on numerous occasions to deal with trespassers and other individuals who may have visited the site for purposes which could result in potential commission of criminal and civil offenses. The submission of this Application offers an opportunity for the Town to eliminate the safety hazard to the public due to the condition of the property. The Board can find that this condition is met.

11. EDR-11 Microclimate

With respect to the localized climatic characteristics of a given area, any development which proposes new structures, new hard surface, ground coverage or the installation of machinery which emits heat, vapor or fumes shall endeavor to minimize insofar as practicable, any adverse impacts on light, air, and water resources or on noise and temperature levels of the immediate environment.

Based upon materials provided in the application, there will be no adverse impacts on air and water resources or on temperature levels of the immediate environment. The project removes eight trees while maintaining several mature trees to the rear of the site as part of the project. The addition of the street tree will reduce the heat island effect identified in this section of the Mass Ave corridor. The Board can find that this condition is met.

12. EDR-12 Sustainable Building and Site Design

Projects are encouraged to incorporate best practices related to sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. Applicants must submit a current Green Building Council Leadership in Energy and Environmental Design (LEED) checklist, appropriate to the type of development, annotated with narrative description that indicates how the LEED performance objectives will be incorporated into the project.

A LEED checklist was provided. Additionally, the applicant notes in the project narrative that the project is committed to the inclusion of the following sustainability components which are not shown on the plans:

- Sustainable exterior and interior building & site materials and products
- Building envelope compliance with the Stretch Energy Code
- Low-Emittance windows & doors
- Energy-efficient mechanical systems
- · Indoor Air Quality and thermal comfort
- Energy-efficient lighting and electrical devices
- Energy Star appliances
- Cool roofs & trellis shading
- Solar-ready roof features
- Sustainable and less water-intensive landscape materials
- Non-invasive plant materials
- Site and building cooling strategies utilizing planting locations
- Waste reduction and recycling
- Storm water management

IV. Findings

- 1. The ARB can find that the project is consistent with Environmental Design Review per Section 3.4 of the Zoning Bylaw.
- 2. The ARB can find that the landscaped areas adjacent to the parking area justify the buffer area reduction per Section 6.1.11.

V. Conditions

A. General

- The final design, sign, exterior material, landscaping, and lighting plans shall be subject to the approval of the Arlington Redevelopment Board or administratively approved by the Department of Planning and Community Development.
- 2. Any substantial or material deviation during construction from the approved plans and specifications is subject to the written approval of the Arlington Redevelopment Board.
- The Board maintains continuing jurisdiction over this permit and may, after a duly advertised public hearing, attach other conditions or modify these conditions as it deems appropriate in order to protect the public interest and welfare.

- 4. Snow removal from all parts of the site, as well as from any abutting public sidewalks, shall be the responsibility of the owner and shall be accomplished in accordance with Town Bylaws.
- 5. Trash shall be picked up only on Monday through Friday between the hours of 7:00 am and 6:00 pm. All exterior trash and storage areas on the property, if any, shall be properly screened and maintained in accordance with Article 30 of Town Bylaws.
- 6. The Applicant shall provide a statement from the Town Engineer that all proposed utility services have adequate capacity to serve the development. The applicant shall provide evidence that a final plan for drainage and surface water removal has been reviewed and approved by the Town Engineer.
- 7. Upon installation of landscaping materials and other site improvements, the Applicant shall remain responsible for such materials and improvement and shall replace and repair as necessary to remain in compliance with the approved site plan.
- 8. All utilities serving or traversing the site (including electric, telephone, cable, and other such lines and equipment) shall be underground.
- 9. Upon the issuance of the building permit, the Applicant shall file with the Building Inspector and the Department of Community Safety the names and telephone numbers of contact personnel who may be reached 24 hours each day during the construction period.
- 10. Building signage shall be filed with and reviewed and approved by the Department of Planning and Community Development and Inspectional Services.